INTERNATIONAL BEST PRACTICES OF PEDAGOGICAL ACTIVITY: EXPERIENCE, RISKS, PROSPECTS
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PREFACE

The modernisation of contemporary Russian higher pedagogical education places special demands on training of a competent specialist having outspoken professional position, well-formed readiness to adapt to the labour market, capable of self-development and educating learners in the conditions of rapidly changing reality. The formation of such personality is possible in the educational space of a university, being characterised by the unity of learners’ classroom and extracurricular activities, coordinated interaction of all participants of pedagogical process aimed at solving the common goal and specific tasks focused on high-quality training of future specialists.

The formation of student’s personality as a future teacher has a number of stages coordinated with the process of learning at the university, in particular, with formation of certain knowledge base within the framework of academic discipline studies, acquisition of professional experience in the process of pedagogical training, study of perspective practices and experience of pedagogical activity.

The proper attitude to accumulation, generalisation and popularisation of advanced pedagogical experience contributes to formation and development of professional mastery of both students of pedagogical profile and young teachers.

The advanced pedagogical experience of winners and laureates of the national pedagogical mastership contests in the Russian Federation and CIS countries requires special research.

An attempt of large-scale research of this unique practical experience and its implantation into the training process at pedagogical universities was undertaken by the Russian State Pedagogical University.

The research results were tested at the All-Russian applied research conference with international participation “International Best Practices in Pedagogical Activity: Experience, Risks, Prospects”.

The conference was presented with 102 papers by representatives of educational organisations from Russia and foreign countries, including Latvia, Kazakhstan, Belarus and Uzbekistan.

The aim of the conference was to discuss efficient practices of transformation of modern education aimed at updating its content by strengthening practical orientation and integration of higher and general education, exchange of experience among educators actively using modern educational technologies.

The conference was held along the following directions:

- Practical application of results of efficient pedagogical solutions and advantages of promising practices of pedagogical excellence aimed to improve the quality of education.
– The system of young educators support: ideas and practices.
– Digital learning environment: pedagogue’s new tools.
– The teacher’s personality in innovative educational space.
– Trends in pedagogical education development.
– Learner’s individual trajectory as a resource for future teacher formation.
– Best teaching practices: international and national experience.

The conference participants discussed the pressing issues of organising the teaching process in general-education organisations and vocational guidance in higher education. The participants noted that such pedagogical transfer in modern conditions is one of the important and productive directions of searching for the ways to improve pedagogical mastery.
Formation of suggestive culture in Master Degree of “Pedagogical management” students

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**Abstract.** The article addresses the process of formation of educational institutions’ future executives’ readiness for Suggestive management of Master degree students majoring in “Pedagogical education”, profile “Pedagogical management”; formation of suggestive culture in the elite young people layer – the future “change agents” – aimed at designing a new quality of the spiritual/moral sphere and pedagogical ethics. Of particular relevance are head executives’ personal qualities, their ability to serve as agents of change, as well as the readiness of educational institutions’ managers to work in the conditions of contradictory and innovative challenge. In the process of the research, original tested questionnaires were used. The used diagnostic materials have been presented; a special questionnaire has been prepared – assessing the level of formation of managerial culture in Master degree students of pedagogical profile; the image of efficient manager, as viewed by future educational institutions’ head managers, has been defined. The content of the work includes a variety of materials, cases and activities of Master degree students, as encompassing the specificity and diversity of managerial culture, for learning by the latter. The formation of the fundamentals of suggestive culture takes place by means of the discipline “Suggestive management”. The authors describe the use of diagnostic techniques that not only make it possible to monitor the schooling results of future managers, but also represent training and information materials.

**Keywords:** suggestive management, managerial culture, self-development, terminal values, instrumental values, value orientations, communicative skills

1 Introduction

The present stage of societal development, in the conditions of serious changes connected with the processes of globalisation and digitalisation, engenders the need for a manager capable to exercise the management aimed at harmonisation of relations between the process participants.

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It becomes relevant to prepare a future manager in the process of Master degree training: this framework is the basis for formation of his/her general culture, intellect, mentality, ability for interpersonal dialogue and communication, value orientation towards self-realisation and self-development.

Mainly, the emphasis in education managers’ training is made on formation of competences, mastering of due functions. In our opinion, it is important to pay attention, when training specialists whose professional activity in the future will be related to management, not only to their functional competences, but also to their ability to form a suggestive culture, which will let them engage in developmental management.

It is becoming clear today that the former paradigms of management theory are not sufficiently adequate to the present realities. G. Jago [1]; I. Lapina, I. Kairisha, D. Aramina [2]; K. Samuelsson, S. Lindblad [3]; S. Strese, D.R. Adams, T.C. Flattent, M. Brettel [4] note in the studies devoted to managerial culture that this concept is complex and multidimensional. E.V. Pavlova [5] and N.A. Chumak [6] treat managerial culture, in their research papers, in correlation with the subject of management and personal characteristics.

The research essays of V.A. Slastenin and V.P. Kashirin [7] cover various aspects of professional culture (business communication culture, scientific research culture, pedagogical culture) of educational institutions’ head managers. Management always involves people and can be aimed both at one’s self or other person or group of people, and is exercised through certain organisational norms, techniques, incentives, etc.

We live in the epoch of global transition to new digital technologies [8], transformation of a “cog” into an independent subject of activity. Such changes require self-actualisation, a change in us.

Self-actualisation theory is the key area of humanistic psychology (A. Maslow, G. Allport, C. Rogers, etc.). The key idea of self-actualisation, according to A. Maslow, is individual’s desire for self-actualisation, realisation of one’s inherent resources, forces, abilities and talents, a person’s conformity with his/her nature, the desire to become competent, to become what he/she might have urged for, what he calls the “tendency to self-actualisation”. The man is motivated to become whole, complete, self-actualising.

Our actions begins with our thought – the universal, most highly organised form of energy, the only force that can systematically organise, accumulate and arrange various facts and materials consistent with some scheduled plan.

Idea is related to breathing, the breathing rhythm – the inflow of oxygen to the body and removal of carbon dioxide from it. Proper thinking depends on having a calm, reserved, concentrated mind.

An educated person is the one who continually develops his/her thinking, controls the mind and manages the emotional state.

The manager’s task is to permanently improve his/her communicative abilities and the ability to communicate, exchange information and build appropriate relations with partners on this basis. It is not possible to resolve this task by traditional means.

2 Materials and methods

The authors consider the formation of suggestive culture as a pedagogical problem within the system of training undergraduate students in the profile “Pedagogical education”, as based on the Federal state-owned publicly-funded institution of higher education “Kalmyk State University named after B.B. Gorodovikov”.

In the process of the research, original tested questionnaires were used. The used diagnostic materials have been presented; a special questionnaire has been prepared – assessing the level of formation of managerial culture in Master degree students of
pedagogical profile; the image of efficient manager, as viewed by future educational institutions’ head managers, has been defined.

The content of the work includes a variety of materials, cases and activities of Master degree students, as encompassing the specificity and diversity of managerial culture, for learning by the latter. The formation of fundamentals of suggestive culture takes place by means of the discipline “Suggestive management”.

3 Results

The authors define managerial culture as a mentality level and a property of the personality that provides for solution of problems and tasks arising in the process of management and in situations that require managerial action involving due knowledge and experience, values, abilities and inclinations. Managerial culture serves as a set of general culture, norms, behaviour, values that form the manager’s attitude to the surrounding reality, to the consequences of his/her activity, which requires certain personal qualities enabling him/her to engage in such activity [9].

The best way to lead is, in the first place, to manage oneself, overcome own weaknesses and prejudices, take decisions at a qualitatively different level, develop leader’s and manager’s competences, set the career lift in motion.

The work we carry out with Master degree students includes the diagnostics of formation of their managerial culture, which we consider at different levels: motivational-axiological – interest in managerial activity and acceptance of management knowledge values; cognitive – knowledge of basics of management; communicative – ability for a dialogue; activity-practical – participation in projects; reflexive-managerial – ability for reflection and control of own development. These components were singled out on the basis of the research into educational problems and formation of personal culture from the position of competence approach [10, 11].

The authors have selected and developed the diagnostic methods that not only make it possible to monitor the future managers’ learning outcomes, but also represent training and informational materials [12]. The actual questions and answers to different questionnaires and tests serve as information for collective discussion which contributes to the formation of Master degree students’ managerial culture.

Thus, the authors conducted a survey of Master degree students majoring in “Pedagogical education”, particularly in the profiles: chemical education, pedagogical management and technological education. The questionnaire was aimed at identifying the graduate students’ awareness of own knowledge, skills and opportunities related to management activities. A meeting was organised, as based on the questioning results, for the students who had already verbally discussed their answers to the questions. This is the case when “a question is more important than the answer”.

The analysis of the questioning results showed that the graduate students in the profile “Chemical education” were more inclined to take initiative in any endeavour. Compared to others, they were less likely to apply theoretical knowledge in practice. As for the results of the survey of Master degree students majoring in “Pedagogical management”, many of them noted that they were following the changes in legislation and international events, that they were leading a more active lifestyle and were able to find a compromise in any unexpected situations. Moreover, many of them answered that they were trying to apply self-development skills frequently and develop communication skills. The answers of Master degree students majoring in technological education were more diverse. They gave versatile answers to many questions.

When analysing the answers, we paid attention to the Master degree students’ ability to adequately assess them. It was important for us to clarify verbally what they meant by self-
development or communication skills. In addition, we paid attention to the actual ability for reflection – self-assessment.

The authors treat working with the diagnostic material as one of the forms of interaction with Master Degree students, that develops their reflexive sphere and, as a consequence, the extent of awareness. This means one’s ability to be in a dialogue with himself/herself, to analyse one’s subjective reality (inner world), to realise oneself as a subject of consciousness, communication and activity [10].

The authors developed an adapted test based on M. Rokeach’s value orientation study method [13, 14], which is based on direct ranking of values, and on the study of Academician G.N. Volkov’s ethno-cultural value orientations [15], with regard for the formation of modern head manager’s necessary qualities of culture. The graduates were asked a question “What value orientations do you think a modern educational institution executive should have?” Two classes of values can be distinguished: terminal – i.e. the assertions that the ultimate goal of individual existence is worth to strive for; instrumental – i.e. the assertions that a certain way of action or property of a person is preferable in any situation.

The subjects were asked to rank the value cards labelled “T” (terminal) or “I” (instrumental), that were offered as one set arranged in disorder, first the “terminal” and then the “instrumental”.

The dominant orientation of values was clearly recorded as a certain life position according to the involvement level criteria – on the one hand, towards the sphere of work and on the other hand, in terms of the manager’s general culture. The survey results analysis made it possible to assess the life ideals, the hierarchy of life goals, the means or perception of behavioural norms and their value, as considered by the graduate student as a benchmark for the manager’s culture.

According to the survey results, 50% of the respondents, considering the block “T” (terminal values), prioritised life wisdom and interesting job in succession. 30% of the respondents successively prioritised health and cognition as an opportunity to expand their education. 20% of the respondents prioritised materially secure life, followed by interesting job. As to the block “I” (instrumental values), 55% of the respondents pointed to honesty, responsibility and open-mindedness. 25% mention tolerance, efficiency in business and manners. Savoir vivre, self-control and strong will in all undertakings were mentioned by 20%.

4 Discussion

The obtained answers can be ranked, and a picture of undergraduates’ value orientations can be derived. But in the case under review, this is not sufficient to judge on the extent of formation of their managerial culture. We are looking for the ways to determine the level of awareness of future managers and their interest in self-development. We are concerned about the “post-diagnostics” – when Master degree students analyse their own answers to the questions and assess the extent of their interest in the following: future activity (profession); own education; their life (interest in intended life goals). Here the new forms of working with Master degree students are involved. Round-table meetings, where the questions and answers concerning the activity of educational institution’s head manager are discussed, have become a necessary part of shaping the fundamentals of managerial culture.

In this paper, the undergraduates’ answers are used as a reason and a basis for a dialogue on the issues of management of the educational organisation and differences between the subordinate manager and the head executive. In such dialogues, the students come to a conclusion that managerial skills involve selection of best options from available alternatives in the process of managing the organisation, while the head manager's role is
broaden and his/her personality is important in the holistic development of the systems he/she manages. The undergraduates learn to model and apply the manager’s personality traits to themselves.

Among the main parameters monitored during all kinds of work with Master degree students are the following: interest in learning, activity in discussion, demonstration of initiative, participation in social projects, culture of speech, personification and authorship of messages. As shown by our experience, the number of Master degree students who started demonstrating these qualities increased significantly between the first and the following surveys (within the year), when a new wave of diagnostic and training methods was implemented.

We consider various forms of public speaking, followed by self-reflection, to be an important aspect of working with Master degree students. For instance, it has become traditional for future head managers to present the “McNamara’s speech” [16] before a large audience. The effect of this technique is enormous. This is a practice of expressive pronunciation learning by heart an excerpt from R. McNamara’s speech [16]. The advantages of the exercise: strengthening of the nervous system and willpower. It improves as well the ability to concentrate and trains memory. One’s pronunciation and diction are improved. The power of influence and suggestion increases.

5 Conclusion

One year later, the undergraduate students, who we worked with in the course of development of the fundamentals of managerial culture, were asked to write a mini-essay on the topic “How I see the image of efficient head manager” and “How I see myself as a head manager in the sphere of education”. Many of those who participated in the experiment asserted that the efficient head manager should be sociable and at the same time keep distance with subordinates, be kind and at the same time strict, take care not only of himself/herself, but also about the team. The vast majority of essays described head manager’s personal qualities in detail. It was emphasised that the core duty of efficient manager was to learn how to manage himself/herself, his/her character, emotions, words and deeds. The scope and nature of the analysed texts enabled the authors to conclude that the Master degree students perceived themselves as future educational head managers quite consciously in a progressive manner. The texts contain fewer general phrases, cliché judgments; examples from personal life are adduced. But the main indicator of the graduate students’ dynamics in mastering the basics of managerial culture is their increased academic performance, manifestation of leader’s qualities, as well as their participation in university and regional social projects. As shown by the analysis of the undergraduates’ answers, communication, behaviour and activity products, the number of those who showed activity at the practical level (showing initiative, participation in social projects) and reflexive-managerial level (keeping with self-development programmes) increased.

Thus, the formation of suggestive culture in Master Degree students of “pedagogical management” profile refers to the activities requiring specific personal qualities which make a person professionally suitable for managerial activity. The formation of fundamentals of suggestive culture in Master degree students as future managers of educational institutions is a complex and multidimensional process which includes the work towards development of one’s identity and reflexive sphere as an essential component. Its efficiency depends on creating the environment in which future managers will have an opportunity to demonstrate their managerial skills and analyse themselves as a subject of managerial actions.
The formation of management profile refers to the activities requiring specific personal qualities which answers, commun academic performance, manifestation of leader's qualities, as well as their participation in students' dynamics in mass. The texts contain fewer general phrases, clichéd the Master degree students perceived and deeds. The scope and nature of the analysed texts enabled the authors to conclude that manager was to learn how to manage himself/herself, his/her character, emotions, words manager's personal qualities in detail. It was e himself/herself, but also about the team. The vast majority of essays described head experiment asserted that the efficient head manager should be...
Transformation of modern Kazakh family in the context of globalisation

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Abstract. The article reveals cultural and value transformation of the modern Kazakh family in the context of globalisation processes. It undertakes the analysis of child education in the Kazakh family in the sociocultural conditions of modern Kazakhstan. There is a belief that the healthy family means, in the first place, a healthy society, and therefore, a strong, stable country. The formation of family relations based on such values as respect for parents, mutual respect and care, faithfulness, upbringing of children in the spirit of high morals, responsibility of parents for the fate of their children and, in turn, the duty of children to their parents – all this is included in the concept of “family”. The family is a primary source of the individual’s acquaintance with the prevailing social values, norms, traditions and patterns of behaviour; it also serves as a core foundation in the individual’s choice of religious affiliation, formation of his ethnic identity and worldview. Being the principal institute of reproduction of the spiritual life in the society, the family has retained the ability to convey cultural values, traditions and customs to new generations, to preserve the moral and spiritual potential of the society. It is believed that the highest degree of identification pertains to family identity, and it is quite difficult to replace its millennial experience.

Keywords: family, spiritual and moral values, globalisation processes, cultural/axiological transformation

1 Introduction

The global changes that have taken place over the last quarter of the century have transformed the world space from bipolar to multi-polar, multi-civilisational one.

In the context of globalisation, the problems of preservation of national identity based on spiritual and cultural values of a nation acquire special value. The modern society requires not only man’s polytechnic knowledge, high cultural level, specialisation in various fields of science and technology, but also the ability to live, coexist in the society. The art of preservation of cultural heritage is adequate to the instinct of self-preservation. This state of things is especially heightened in the conditions of search for national identity, against the background of the globalisation processes.
The key parameters of young people’s personal development can be viewed as their orientation towards universal values, humanism, intelligence, creativity, activity, self-esteem and independence in judgement.

Fig. 1. Globalisation in culture. Compiled by the authors.

The programme of spiritual revival of public consciousness “Rukhani Zhangyru” [1] focuses on the development of the educational system for the formation of new-style professionals who are able to assimilate modern national spiritual values, comprehend profoundly the global trends, think constructively and engage in activities in competitive environment. In this context, it is natural to take interest in the historical past which has rich experience of both realised and unrealised opportunities for the development of family education.

2 Methods

The methodological foundations of the problem under review are reflected in a number of historical and pedagogical studies (by G.N. Volkov [2], K.B. Zharkibev [3], A. Seydembek [4, 5], K.B. Boleev [6], Ya.I. Khanbikov [7], B.M. Bim-Bad [8] and others). The above researchers point out that historical experience is an important source from which pedagogical science can draw material for the development of vital problems of education, borrow valuable ideas for practice. For instance, Zh.Zh. Nauryzbay, prominent Kazakh scholar, notes that actualisation of ideas, systems and concepts committed to oblivion is very important for the development of modern pedagogical approaches to family education, as well as the illustrative review of pedagogical theories of the past, their comprehension and further multi-aspect use [9].

Still, some valuable thoughts about the family and family education were voiced even earlier. In particular, Keykavus in his treatise “Kabusname” stresses, in the chapter “On the Knowledge of Parents’ Duties” [10], that any parent should provide education, training and craft for his/her children since there is no better heritage than education. Al-Farabi compared the importance of mentor in a person’s life to statesman’s work [11]. In his
opinion, the parents are the first educators and mentors of a child; it is their function – to prepare it for future life. Yusuf Balasaguni noted that a person should be taught all things from the young age, since “children cannot forget what they learnt in infancy, as long as they are alive” [11]. He gave the following precept to young parents: “Inspire your son with beneficial science from childhood. The one who has been taught from childhood is capable of many things”. Ahmad Yunnaikiy in his treatise “Gifts of the Righteous” emphasised that one should teach a child in the family to be “close to wise people” who would help him to find complete happiness in a difficult time [11].

A famous Kazakh educator Abai argued that “a child is drawn to everything new, but not all children want to learn”. Therefore, sometimes it is necessary to prove the necessity and usefulness of acquiring knowledge through persuasion and parental authority [12].

The principle of national character of education is implemented in early childhood, in the process of mastering the native language. The character of a nation, people’s identity, their thoughts and aspirations, moral ideals are particularly evident in the educational activity of Sh. Valikhanov, Y. Altynsarin, Sh. Kudayberdiev and others [12].

For instance, Sh. Valikhanov called for revival of the “national spirit”, believing that the latter is inherent in people and depends on both the natural environment and social order [12]. The scholar considered the manifestation of the national character’s features in the multidimensional aspect. He carefully analysed the characteristics of everyday life in a number of his works, as well as the national traditions, customs, culture, religion, geographical environment and their impact on the formation of a child’s character, starting from the early age.

Y. Altynsarin, educator and enlightener, considered verbal folk art as the most important source of ethical education in the family, as reflecting the life and everyday styles, patriotism, traditions and customs of the nation. This is evidenced by Y. Altynsarin’s “Kyrgyz Anthology” which presents fairy tales, epic poems, proverbs, sententious articles with pronounced moral and ethical content [13].

Shakarim Kudayberdiev asserts that it is necessary to introduce the “science of conscience”, to be developed by scholars as a discipline mandatory for everybody; still the education under this science should start in the family [14].

Family education was assigned a crucial role by prominent educators S. Toraigyrov, M. Kashimov, Zh. Aimautov, M. Zhumabayev and others [15].

Being in the family, as a part of family ties and intra-family relations, a person feels his/her closeness to representatives of the same nationality, socio-political group, same religion [16].

Family traditions and customs are practiced in all social systems and are a necessity life condition. In accordance with the set objective, over 50 moral qualities were identified, that are formed presumably by family traditions. In order to identify the pedagogic opportunities of family traditions, a list of these qualities was offered to the third-year students of L.N. Gumilyov Eurasian National University and Turan-Astana University (Nur-Sultan, Kazakhstan). The respondents were asked to determine the extent of influence of a particular tradition or a ritual on the formation of most important moral qualities, as viewed by them. Further, in order to identify the willingness of Kazakh young people to observe traditions in their family life, experimental surveys involving the same students were carried out.

The authors conducted a selective survey among the final-year students of the above universities, with the purpose:
- to reveal how much attention is paid to family traditions;
- to reveal what particular family traditions are observed in families;
- to reveal what methods are used to introduce the students to the existing family traditions.
A total of 85 people took part in the survey. They were offered a list of questions:
1. Do you know your family shezhire (genealogical tree)?
2. In your opinion, should your family have own traditions?
3. What traditions do exist in your family?
4. In what way did particular traditions appear and got established in your family?
5. In what way does the introduction to the values adhered to by your family take place?
6. Would you like to see your children adopting your family traditions in their future families?

3 Results

When analysing the answers to the first and second questions, one may conclude that in most cases young people know their family traditions, in full (34%) or in part (48%). Moreover, the existence of own traditions in these families is mandatory (97%). The above answers emphasise the importance of family values in today’s fast-changing society. For convenient analysis of the third question, the results of answers are presented in the form of a diagram. Following the received answers, percentage calculation, as well as rating of family traditions practiced in the Centre’s students’ families, was made.

According to the questioning results, the tradition to celebrate family members’ birthdays is predominant (100%). The second position in the rating was shared by cultural events, which include collective visits to cinemas, theatres and museums (86%) and public holidays, such as Nowruz, New Year, March 8, etc. (85%). The traditional family dinners on Sunday ranked third (51%).

Some families attach importance to family councils (34%) which enable conflict-free productive settlement of family life problems. Some of the students mentioned professional holidays (20%) and making photo albums (20%). The family foundation day (17%) and religious ceremonies (14%) were mentioned by only few respondents. Thus the table above shows that many families underestimate the educational potential of moral, religious and labour traditions.

The following results were obtained in respect of question 4:

The traditions appeared and got established in our family because they are anchored in the society (86%)
They are passed in our family from generation to generation (17%)
We purposely made it a tradition for our family (28%)
It came about by itself (31%)
Other (0%)

It follows from the above that in most cases family traditions emerge due to their relevance in the society, while only few people create traditions in their families purposefully.

The analysis of the fifth question showed that all the methods for assimilating the existing family values, as listed in the questionnaire, are used.

Thus, the questioning results showed that the students’ families paid insufficient attention to family traditions. At the same time, the students said they would like to adopt the family traditions in their future families.

4 Discussion

It should be noted that the importance of the family institute in modern society is undeniable. However, according to our analysis, most researchers note that presently the institute of the family is in recession. In this respect, two trends stand out in most developed
countries of the world: a) instability of marriage alliances and increased rate of divorces; b) decline in fertility and deliberate childlessness. Our research confirms that there is no worthy alternative to the family in terms of assuming specific family functions, including birth and upbringing of children.

Therefore, despite the difficulties faced by the family institute, it remains a psychological oasis protecting the individual from conflicts with the outside world. It can be seen from the examples adduced in the article that the family remains the place where a person can restore his/her emotional energy and balance that are subjected to enormous influence of the modern world, with its specific information update speed. It is in this context that studying the system of interpersonal relations in the family acquires great importance; at the same time, new, non-traditional functions are assigned to the family as a social institution. We have tried to prove that, in respect of the Central Asian region, it is only the family that is capable to convey the exclusive unity of spiritual and vital values to the developing personality, as well as the traditions and culture of a particular social group, since only the family is a subject and a bearer of this unity.

5 Conclusion

Modern society is a platform for shift in value orientations. The processes of globalisation in modern Kazakhstan have further exacerbated the changes in the traditional family, intensified the devaluation of patriarchal family values and the shift in value priorities. The integration into the world community is taking place in the context of copying the Western way of life and dissemination of individualistic values.

The nature of the family as a complex social phenomenon is conditioned not only by intra-family relations, but also by socio-economic, historical, national and other prerequisites. Studying the modern Kazakhstani family’s problems, its cultural and value transformation, we revealed an ambiguous interpretation thereof: some authors argue that the family institute shows evident symptoms of decline, disintegration and will soon cease to exist as it has lost its significance; the others, on the contrary, believe that no crisis of the family can be traced, that nothing threatens it, and it will exist forever. A number of other opinions exist, ranging between these extreme points of view. This is probably because the family is quite a complex object of study – since, being firmly embedded in the practice of everyday life, it appears to be a somewhat “universal fact” which, according to Françoise Héritier, is deemed to be well understood by everyone, or assumed to be comprehended.

Previously, the role of women in the Kazakh family was covered by us in the article “The role of women in modern society: the problems, revival and dissemination of national traditions” [17].

In the future we plan to highlight the role of man in the Kazakh family and to reveal his importance in the ethnopedagogy and literature of the Kazakh nation.

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Adequacy of translation of colloquial vocabulary in A.S. Pushkin’s novel “Eugene Onegin”

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Abstract. This article analyses the problem of adequate translation of colloquial vocabulary in A.S. Pushkin’s novel “Eugene Onegin” (Pushkin, 1986). The problem of translation adequacy has always been central to both translation theory and practice. Translation means a permanent search of linguistic means aimed to express the unity of content and form represented in the original and to choose between several options of conveyance. This search and this choice presupposes creativity, requires active work of mind. As to fiction, which is marked by author’s high mastery and expressiveness of language, its translation resolves creative imaginative problems, requires literary skills and pertains to the sphere of art. The scientific novelty of the work lies in the research of adequacy of translation relative to a work of fiction, or rather, to translation of colloquial vocabulary; acknowledgement of effectiveness of translation techniques aimed to achieve adequacy of translation, which provides all-round coverage of the addressed problem. The problem of conveying colloquial vocabulary to another language, when translating a fiction text, is of particular interest for our research. The material for studying the English translation of the Russian colloquial vocabulary in Pushkin’s verse novel is represented by translation of this literary work by the following authors: Oliver Elton (Elton, 1946), Walter Arndt (Arndt, 1992) and Vladimir Nabokov (Nabokov, 1981). The authors of the present article classified the examples of colloquial speech translation according to the following criteria: total adequacy of translation and partial adequacy of translation. Partial adequacy of translation, in turn, was subdivided into cases of insufficient translation equivalence and excessive translation equivalence.

Keywords: poetry, adequacy of translation, equivalence of translation, translation theory

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1 Introduction

One of the central issues in modern linguistic theory of translation is the problem of translation equivalence and adequacy, the problem of recreating the communicative effect of the original text in translation. The range of operations covered by the term “translation” is very wide. With all the specific requirements set to the translator by a particular kind of material, the following provisions are common: the purpose of the translation is to acquaint the reader (or listener) not knowing the original language, as close as possible, with the text (or content of speech); translation means used to express correctly and fully, with the toolkit of one language, what is expressed by means of another language [1].

Translation supposes permanent search for linguistic means expressing the unity and form presented by the original and choosing between several options of conveyance. The issue of adequacy and its content applies not only to fiction, but also to scientific, business and journalistic texts. The problem of translation adequacy has always been central to both translation theory and practice [2].

The relevance of the research is determined by the fact that the problem of adequacy in conveying colloquial vocabulary in translated fiction texts is so far insufficiently studied. Moreover, this particular stratum of both Russian and English languages is of great interest for research. This is due to the fact that, firstly, the words of colloquial style (with the exception of neutral vocabulary) are used quite frequently in everyday communication; secondly, colloquial vocabulary represents the most complex layer of the language lexical structure for specialists mastering a foreign language exhaustively, thus presenting the greatest difficulty.

The role of colloquial vocabulary in a fiction text and the means of its conveyance in translation are the issues of considerable interest within the framework of this problem. The translation process results are conditioned by the extent of semantic proximity of the translation to the original, as well as by the genre and stylistic features of the text. The dominant feature of works of fiction is the artistic/aesthetic or poetic communicative function. Consequently, what may be considered accurate and correct in translation of a scholarly text may easily be inappropriate in translation of a fiction text where adequacy is often achieved by deviating from word-based translation [3].

The issue of translating fiction is extremely complex due to the specific features of belles-lettres, the writer’s individual manner, the variety of lexical and grammatical means of the language.

L.N. Sobolev, talking of accuracy of belles-lettres translation, asserts the conveyance of various expressive means of imagery and emotivity to serve as this criterion. V.N. Komissarov defines the need for equivalence in conveying the stylistic characteristics of the original material. He does not see the need to take into account the ways of expressing the stylistic specificity of the meaning. The equivalence relationship requires only stylistic matching of the utterance as a whole [4].

E.V. Breus points out that achieving expressive equivalence requires certain measures to preserve the expressive effect of the original. He offers practical rules of translation from Russian into English, needed to preserve stylistic equivalence [5].

Researchers note that, firstly, the lexical diversity of colloquial speech is caused by the breadth of thematic range, and secondly, colloquial speech is exercised in two moods – serious and humorous, the latter being extremely important in colloquial speech since it is directly connected with extralinguistic factors (for instance, ease of communication) [6].

Colloquial style is possible not only in a verbal, but also in a written form. Colloquial constructions are widely incorporated in works of fiction and are a part of active vocabulary of many writers and poets. The use of such words is one of the methods in verbal characterisation of literary heroes. The present study explores the colloquial vocabulary of
A.S. Pushkin’s verse novel “Eugene Onegin” and its translation into English. As an opponent of the theory of “sublime objects” of artistic embodiment, Pushkin-the-realist poetises simple, most common objects, which in turn allows him to find new techniques of representation [7].

The purpose of the research is to analyse the peculiarities of the Russian-to-English conveyance of the colloquial vocabulary in the novel “Eugene Onegin” in a number of translations into the English language. The paper does not aim to evaluate the translation options as works of fiction. The authors made an attempt to analyse the ways of conveying the colloquial vocabulary into English. As part of the work, we have identified the following objectives: to assess the adequacy level of translation of particular lexical units; to investigate the main translation techniques and methods that make it possible to convey the meanings and functions of the colloquial vocabulary in order to achieve adequacy of belles-lettres translation.

2 Methods

The following translation options of Pushkin’s novel “Eugene Onegin” into English were used as the material for this study: O. Elton’s translation published in 1946 [8], Nabokov’s translation published in 1981 [9] and W. Arndt’s translation published in 1992 [10], since these versions are considered to be the most accurate and appropriate of all existing ones.

The focus of our research supposed the use of general comparative and interpretive comparative analysis, since these methods make it possible to identify any minutest inaccuracies in match between the translation and the original text.

Since language represents a system in its development, it is necessary to classify vocabulary within a certain period. We paid special attention to the colloquial vocabulary in the novel “Eugene Onegin” which is not deemed obsolete at present and made an attempt to classify this lexical corpus according to the following criteria: total equivalence, insufficient equivalence and excessive equivalence in translation.

3 Results

The research findings showed that full adequacy of translation is represented by accurate reproduction of the denotative meaning, as well as correct conveyance of word connotations, i.e. expressive, stylistic complements to the basic meaning. It should be noted that it is lexical units denoting colloquial vocabulary, various realities of everyday life that are prone to accurate reproduction of the original language in the target language, above all. As an example, some colloquial expressions from the novel can be adduced, as translated absolutely precisely by all of the authors – “plants cabbage”, “breeds ducks and geese”, “teaches ABC to the children”:

“plants cabbage” – “plants his cabbage” (O. Elton); “plants cabbages” (V. Nabokov, W. Arndt);
“breeds ducks and geese” – “contents ducks and geese to breed (O. Elton); “breeds ducks and geese” (V. Nabokov); “tends geese and ducks” (W. Arndt);
“teaches ABC to the children” – “teaching his children how to read” (O. Elton); “teaches his children the ABC” (V. Nabokov); “at his knee the children learn their ABC” (W. Arndt)

The examples of partial adequacy of translation show that it is the lexical units belonging to the colloquial language corpus that serve as an object of various kinds of digression, those characterised primarily by various emotional and expressive shades of meaning. Adequate conveyance of such vocabulary requires necessary comprehension of
this subtle matter and appropriate professionalism of the translator. Furthermore, each language has its own specific grammatical, lexical and syntactical features.

All examples of partial adequacy are split by the authors into cases of insufficient and excessive translation equivalence. As shown by our observations, improper equivalence of translation can manifest itself either semantically or stylistically, or both. Deficient equivalence of translation in the semantic aspect may be caused by insufficiently accurate, and sometimes – incorrect conveyance of the colloquial vocabulary meaning. Poor stylistic equivalence of translation can be observed in case of discrepancy in stylistic colouring of words – although such cases can demonstrate full semantic correspondence of the translation and the original. The colloquial expression from the novel “lightly dressed” can serve as an example. W. Arndt uses the expression “lightly sauntered” – “to have a stroll, lightly handled”, which conveys the meaning of the original words inaccurately. Another example: the expression “the guests are crowding” in the sense of “no space” is not accurately translated by V. Nabokov and W. Arndt: “the guests make room” – make way, “the guests move over” – vacate a seat, move.

Partial adequacy of translation may be caused by redundancy thereof. Redundancy is a result of most serious difficulties in translating the original. Usually this pertains to cases that are called untranslatable and those when the translator, in order to convey the meaning of the original, in the absence of equivalent units, resorts to additional means that prove to be superfluous compared to the original. An example of redundancy is the following line from the novel, as translated by O. Elton and W. Arndt: “Let’s have lunch soon!” – “Look sharp, and see the table groans” (O. Elton); “to table now, and no two ways” (W. Arndt). Compared with the Russian phrase, these examples are verbose and somewhat complicated.

4 Discussion

In addressing the problems of translation accuracy, it is necessary to distinguish between the concepts of adequate and equivalent translation. These terms have long been used, but have been treated differently in translated literature. V.N. Komissarov believes that the term “adequacy” has a broader meaning. He interprets adequacy as a translation that provides necessary completeness of inter-lingual communication in specific conditions, as well as turning to pragmatic objectives of the translation act at the highest possible level of equivalence. The term “equivalence” serves as a basis of communicative equivalence; its presumed presence makes a text translatable. Any adequate translation should be equivalent (at any level); however, not every equivalent translation is recognised to be adequate (but only the one that meets some other normative requirements, in addition to the equivalence norm) [4].

A.D. Shveitser acknowledges that both adequacy and equivalence have an evaluative/normative nature. But whereas equivalence is focused on translation results, on compliance of inter-lingual communication of the text with certain parameters of the original, adequacy is related to the conditions of a communicative act, with the choice of translation strategy appropriate in the communicative situation. He notes that adequate translation with partial equivalence is a rather frequent phenomenon in fiction, especially in poetry [11].

Modern research of adequacy and equivalence in translating fiction prose and poetry from Russian into English pays particular attention to the identity of a translator. There is an opinion that poetry should be translated by a translator rather than a poet since the poet runs the risk of departing from the original language in attempting to convey the underlying in-depth meaning of the literary work [12]. Whereas the scholars, such as V.N. Komissarov, A.D. Shveitser and A.V. Fedorov, used to primarily address the correlation of the terms ‘adequacy’ and ‘equivalence’ and their practical application in translation, today
one can observe a new trend which emphasises not so much the dependence on the original text as the inspiration caused by it [13, 14].

Modern authors pay special attention to translating not only poetry, but also drama which gradually reveals the protagonists’ character and their motives through dialogues. In this case, the adequacy and equivalence in conveying the original language will be conditioned by perception of the reader and the spectator [15].

There are a number of works devoted to the study of adequacy and equivalence of translation of belles-lettres from Russian into different world languages. The authors analyse the rhyme, as well as the lexical, grammatical and syntactical components in the attempt to identify the linguistic features of the original language and their translation into another language.

5 Conclusion

The present research has shown that there are numerous cases of full and partial adequacy of translation of the colloquial vocabulary in the novel “Eugene Onegin” from Russian into English. This paper attempts to demonstrate just a few spectacular examples illustrating the purpose of the research.

Summarising the above, it is possible to conclude that the given research is of interest for a broad range of readers, since the presented results can be used in the practice of teaching translation science as an academic discipline at a higher education institution, and also as a criterion in assessing the quality of translation. Further prospects of our work will involve assessment of foreign language students’ skills of translating Russian classics into English.

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The present research has shown that there are numerous cases of full and partial adequacy of translation of belles-lettres from Russian into another language. This paper attempts to demonstrate just a few spectacular examples illustrating the condition of perception of the reader and translation adequacy. In this case, the adequacy and equivalence in conveying the original language will be one can observe a new trend which emphasizes not so much the dependence on the original text as the inspiration caused by it. The spectator's interpretation of the translated text is conditioned by perception of the reader and their motives in translation. The pursuit of this goal will gradually reveal the protagonists' character and their motives through dialogues. In modern translation studies, this approach is becoming more and more popular. The authors of the present research have found a number of cases that convincingly illustrate such a technique. One of the most famous examples is the translation of Pushkin's Eugene Onegin: Verse Novel. The translation of this work is a good illustration of the fact that the adequacy and equivalence of the translation are not only in the use of the same vocabulary, but also in the representation of the original text in the new language. 

Dialogicity of individual and collective in distance education in Russia and China

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Abstract. This article discusses the implementation of the dialogicity of individual and collective experience of young people as one of the main pedagogical principles in the context of distance education. The study of the experience of the educational systems of Russia and China, as well as the generalization of their own pedagogical experience, allows the authors to identify several of the most effective types of activities and forms of organizing the educational process, and to come to a number of conclusions about the specifics of ensuring the dialogic nature of individual and collective experience in a distant format. The authors come to the conclusion that in order to ensure the effective dialogicity of the individual and collective experience of young people, it is impossible to limit ourselves to remote interaction of participants in the educational process, the most effective form of interaction in this context is a blended format that provides the necessary pedagogical conditions for both the formation of the individual experience of young people, and for the development of the collective social experience, as well as for ensuring their dialogicity in the process of training, upbringing and socialization of young people’s personality.

1 Introduction

In the context of global changes associated with the total digitalization of all spheres of society, in the process of observing modern youth, there is a shortage of necessary and relevant skills of real communication and interaction when solving tasks in the conditions of individual and group activities. In any field, a young person, one way or another, faces the need to participate in both individual and collective activities. This requires constant involvement of existing and gaining new experience, which can be developed both independently and in joint activities. This requires ensuring the dialogicity of individual and collective experience, which is undergoing serious changes in the conditions of new modern concepts of interaction at the stage of education, in which distance education is not the last place [1]. In Russia, in the traditional education system, the issues of ensuring the dialogicity of individual and collective experience in education and training at all levels of education have been worked out in sufficient detail. The individualistic orientation of education, adopted in the last twenty years in Russia as a basis, does not give the necessary result in building educational routes for the vast majority of young people. In this regard,

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we are interested in the experience of China, where the collective experience does not contradict personal success, and distance education does not destroy, but strengthens the best achievements of the traditional pedagogical system that has been established for centuries. In this regard, the problem of the research arises: what pedagogical innovations in ensuring the dialogicity of individual and collective experience of young people can be reflected in Russia in the process of distance education, relying on established traditions [2] and using the experience of China as an advanced developed modern civilization.

The purpose of the study is to present an analysis of pedagogical innovations in ensuring the dialogicity of individual and collective experience of young people in Russia and China in the process of distance education.

In accordance with the set goal, the authors formulated the research tasks:
1. To analyze the innovative experience of ensuring the dialogicity of individual and collective experience of young people in China in the process of distance education
2. To identify the main problems of ensuring the dialogicity of individual and collective experience of young people in China
3. To substantiate the prospects for integrating innovative experience to ensure the dialogicity of individual and collective experience of young people in the process of distance education.

2 Materials and methods

To solve the research tasks, the following methods were used: the study and theoretical analysis of domestic and foreign literature; analysis and comparison of pedagogical innovative experience in ensuring the dialogicity of individual and collective experience of young people in the process of distance education; generalization of the authors’ own pedagogical experience obtained as a result of teaching at the Rostov State University of Economics.

3 Results

Based on the analysis of the Chinese and Russian educational systems experience, as well as the generalization of their own pedagogical practice, the authors have identified and systematized pedagogical innovations to ensure the dialogicity of individual and collective experience of young people in distance education. They are presented in table 1.

Table 1. Pedagogical innovations for ensuring the dialogicity of individual and collective experience of young people in distance education.

<table>
<thead>
<tr>
<th>Pedagogical innovations</th>
<th>Implementation examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. the use of various types of dialogues using information technologies in the educational process</td>
<td>Dialogues at the levels: teacher-students, tutor-students, student-students, etc.</td>
</tr>
<tr>
<td>2. polysubject interaction in a completely remote or face-to-face remote format</td>
<td>&quot;Lesson with a double teacher&quot;</td>
</tr>
<tr>
<td>Activity Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3. professional dialogue using a variety of information platforms</td>
<td>Dialogue of students and representatives of the professional community according to the direction of training</td>
</tr>
<tr>
<td>4. intra-group dialogue</td>
<td>Subject week in the field of &quot;Organization of work with youth&quot;; hour of professional interaction; social networks (Instagram, Facebook, VK)</td>
</tr>
<tr>
<td>5. dialog as a game</td>
<td>The dialogue of students during the game &quot;What? Where? When?&quot;; collective discussion during the lesson in the form of &quot;Your own game&quot;</td>
</tr>
<tr>
<td>6. intergenerational dialogue</td>
<td>Retrospective reconstruction of pioneer traditions, online marathon on Victory Day, Alumni meeting in online mode in 2020, in mixed mode in 2021</td>
</tr>
<tr>
<td>7. intercultural dialogue</td>
<td>Youth forum &quot;Kaleidoscope of Cultures&quot;; International educational Russian-Chinese online forum &quot;Ruchey&quot; (2021)</td>
</tr>
<tr>
<td>8. research dialogue</td>
<td>Scientific conferences, work in a project team (within the framework of disciplines on the instructions of a teacher or on the students' own initiative based on the taught disciplines) in the distance format</td>
</tr>
</tbody>
</table>

These types of activities and forms of organization of training and education provide the necessary conditions for the implementation of pedagogical communication in the educational process, thus forming the prerequisites for ensuring the dialogicity of individual and collective experience in the context of distance education. At the same time, both areas of interaction in the distance format - communication of students with each other and with the teacher – are equally important in the context of the experience exchange, the formation of individual personality traits of students and the use of the collective experience of previous generations in achieving the goals of education in high school.

4 Discussion

In recent years, the emphasis in education in Russia and China has shifted from the priority of passing exams and obtaining certain grades to mastering the ability to learn independently, adapt to an ever-changing world and enter a broad ecosystem of lifelong learning. The informatization of education is an important priority of the Program of Modernization of Education in China until 2030. Similar projects are being implemented in Russia. At the moment, the distance education market in China is the largest in the world. The digital transformation in the educational process also causes cultural changes [3, p. 130], which affects the features of pedagogical communication and shifts the balance of individual and collective experience of students during virtual interaction.

At the level of school education, when a child’s individual and collective experience is maximally revealed and expressed in the process of socialization, dialogicity in the system of pedagogical relations is one of the most important and necessary qualities of education. Distance education is characterized by the fact that all forms of communication occur at a
distance and require the use of special tools and a special educational environment. The implementation of the distance education project for rural schools was launched by the Chinese Government in 2003 [4]. The spread of the Internet in China made possible such an innovation as the "double teacher lesson", which was implemented in more than 80% of primary and secondary rural schools in central and western China [5]. The essence of this model is that nationally recognized teachers conduct lectures and give instructions to students through an online video broadcast, and a teacher's assistant provides individual consultation of students and control over their practical activities. The possibility of face-to-face contact between students allows implementing a joint learning strategy for more productive socialization and development of cooperation skills [6, p. 64]. The classical face-to-face and distance form of a "lesson with a double teacher" creates optimal conditions for personality-oriented interaction and at the same time preserving the traditional priority of public interests and goals over personal ones for Chinese culture.

In the context of this work, it is important that a similar technology can be successfully used in online education and can also be applied in emergency conditions. According to a similar model, school education was organized throughout the country during the lockdown of 2020. An important condition for distance education is a sufficient level of technological competence of all the three subjects of interaction – students, teachers and administrators [7, p. 20]. Another factor of effective distance learning is the availability of the necessary equipment in the educational institution or at home with the student, as well as the availability of various technologies [8, p. 176]. Moreover, teachers often lack the pedagogical skills to use information technologies in teaching [9, p. 133]. Nevertheless, the Chinese government is making every possible effort to solve the problem of technical equipment and high-quality Internet connection of educational institutions throughout the country.

Although in the field of school education in China distance learning is not used throughout the country, but distance education technologies have become a familiar way of learning for higher education. The Open University of China educates about 3.6 million students across the country [10, p. 2]. A major distance learning platform in China has become XuetangX, which is one of the five largest platforms in the world for conducting mass open online courses [11, p. 66]. An important feature of this platform is that it allows students to interactively master educational material and interact with teachers in real time [12]. Online platforms are primarily focused on synchronous online communication of students with teachers and among themselves. It is clear that the share of individual work of university students in distance learning is relatively higher than that of schoolchildren, that is why increased requirements for individual skills of self-organization, planning and self-maintenance of motivation and discipline are being updated [13, p. 56]. The development of pedagogical design technologies in China allows university teachers to develop a personality-oriented approach to distance learning and provide a theoretical basis for autonomous learning of students [14]. Nevertheless, modern technologies provide an opportunity for personality-oriented interaction and effective dialogue of the subjects of the educational process. The use of videoconferencing programs stimulates the formation of collective experience of socialization, assimilation of values, joint experiences, and building personal relationships. However, most of the communication is carried out in writing. Studies have shown that, despite the shortcomings of communication associated with the inability to take into account non-verbal ways of interaction, participation in discussions on the studied disciplines on online forums helps students to maintain interest and improve learning outcomes and helps to form an emotional connection in the teacher-student system in the process of communication and joint activities [15, p. 34]. For
example, the technology of "virtual modeling" [16], which implies both individual and collective work of students to solve educational problems in various areas of study. The dialogicity of individual and collective experience of students in the situation of distance education, despite certain specifics associated with the implementation in a special information and educational environment, is present and acts as an important characteristic of pedagogical interaction.

5 Conclusion

Comparing with the state of distance education in Russia, we can identify a number of factors that contributed to the development and effective functioning of distance education in China. First of all, it is the creation of the infrastructure necessary for distance education throughout the country. The allocation of budget funding, the attraction of additional funds, the development and implementation of plans for computerization of educational institutions create the necessary technical base for the introduction of distance educational technologies. The support of distance education at the state level, the development of appropriate programs and laws, as well as strict state control over their implementation in a timely manner, have made it possible to ensure uniformity and compliance with existing quality standards. The introduction of pedagogical innovations, such as the "lesson with a double teacher", creates a new space for pedagogical communication, which allows implementing distance learning without compromising the organization of joint activities, building value-based relationships, while creating conditions for maintaining dialogue and feedback and sharing experience in the educational process.

The research demonstrated that the analysis of the innovative experience of dialogicity of individual and collective experience of young people in distance education made it possible to identify the main problems and the prospects for the integration of innovative forms of dialogicity of individual and collective experience of young people in Russia and China in the process of distance education. We focus on the fact that in order to ensure the effective dialogicity of individual and collective experience of young people, the remote interaction of participants in the educational process is not enough. Joint activity directly in the real space is an indispensable condition for ensuring the quality of educational dialogue. At the same time, innovation lies in the use of forms and methods of organizing the educational process that ensure optimal and reasonable integration of remote and direct interaction of participants in the educational process.

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Psychological stability as a factor of students’ learning success during isolation

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Abstract. The article presents an analysis of a question devoted to learning problems, psychological difficulties that worried students during the COVID-19 pandemic and the need to adhere to self-isolation. The peculiarity of the current situation is an increased level of uncertainty. For this reason, living in a situation requires the activation of internal, external personal resources, forces you to work on awareness, reflexive understanding of the situation. The ability to maintain psychological steadiness is one of the main competencies of students preparing to become teachers in the future. Only the person with such a skill is able to cope with chronic stress, avoid a situation of emotional burnout caused by the need to constantly interact with students and colleagues. In a society that does not stop changing; the main problem for universities specializing in preparing students for professional activity is the formation of personal psychological stability in a variety of situations facing adverse factors. In the future, only the one who knows how to make decisions even the situation is uncertain and difficult and at the same time does not lose motivation for independent development, self-actualization and self-expression, will become a competent specialist of a first-class. Students noticed the advantages and weaknesses of distance learning after the survey.

Keywords: uncertainty situation, pandemic, self-isolation, traumatic impact, psychological problems, psychological stability.

1 Introduction

The personality psyche stability problems are truly relevant due to the fact that since the 1990s the world situation has been characterized by an increasing frequency of emergency situations. Each catastrophe is not only a tragic event limited in time, but also an extensive set of consequences having a very negative impact on society as a whole and individuals in particular. Cataclysms are different: caused by nature, ecology, man-made. All of them are a source of significant problems at the world level that can destroy the life of an individual. A crisis situation is a factor that provokes the correction of the usual way of thinking that is
always accompanied by stress and negative effect on the nervous system. Negative changes in the surrounding space affect badly the physical health and social well-being of an individual. At the level of the personal psyche, it leads to a higher frequency of neuroticism, anxiety, and depressive disorders. Cases of drug addiction and alcoholic abuse are being recorded increasingly. Prolonged, pronounced anxiety is the basis for the formation of various mental disorders such as adaptive disorders, generalized anxiety, and panic. Instability of the psyche leads to frustration, anxiety and violation of the Self-concept.

Considering the above, it should be recognized that the relevance and significance of the planned research work is determined by the role assigned to the stability of the personality psyche as the main factor of affective, long-term development in conditions forcing a person to self-isolation. It is obvious that the stability of the personal psyche is a means allowing a person to continue development and quickly adapt to the adjusting external, social conditions. Due to this feature, a person is able to organize the life activity in order to be able to quickly and effectively realized self-potential in chosen profession and personal aspects of life.

Psychological stability of a person is an important factor in the effective realization of the capabilities and personalization of higher educational institution students. Subjects are aware of their ability to cope with any adverse endogenous, exogenous factors. This awareness, possible due to the stability of the psyche, becomes a key prerequisite for achieving personal well-being – the basis of stable development (personal and within the chosen profession) [1].

Studying the structure of mental stability, Kulikov, L.V. draws attention to the fact that resilience is the ability of a person to handle problems and maintain a sufficiently high level of mood as well as sufficient level of self-confidence even in the case of frustration. Resilience shows itself through the ability to adapt to the situation, not to stray from the path of constant development. Another aspect of the phenomenon is existential certainty, the ability of a person to adhere to the intended goal. Thus, the person feels that the life is full of meaning that may be verbally expressed [2].

Universities should create an environment where students can demonstrate creativity according to the age of the group [3].

A person whose psyche is healthy and full-fledged behaves autonomously, spontaneously, creatively. There is an ability to receive and understand the aesthetically beautiful, a sense of humor, self-acceptance and acceptance of others [4].

Mental stability is an important factor allowing a person to protect personal integrity, prevent external negative influence on motivation and goals, as well as capability of self-realization. Such stability is a basic need, a priority for each individual. The main factor that makes the person consider the desired goal unattainable is a lack of mental stability, combined with inability, to solve the problems arising in the process of moving in the intended direction [5]. Due to personal instability the problems of forming positive relationships with other members of society, as well as taking control of the situation may arise. The stability of the psyche determines the independence of an individual, formulation of life goal, growth and development of personality [6].

Forced self-isolation is an unusual condition for a normal person that does not correspond to the standard development of life and makes person worry about unpredictability, instability. Zinchenko, V.P. notes in his work that maximum uncertainty accompanies an emergency, critical situation that cannot be predicted [7]. The pandemic has changed many ideas about a comfortable zone, stable existence, and balance. We live in an environment where the media are attacking the minds of the masses, event chronicles are being published by leaps and bounds, people are afraid of the future, panic reigns in society, and rumors are spreading at a staggering speed. Nowadays everyone of us is in an
uncertain situation where there is no chance to predict how it will end up. Forced self-isolation plunges an individual into an uncertain state, that is, an even more stressful situation than a clear idea of the negative consequences of what happened.

Often an uncertain situation affects in such a way that a person feels lost. Previously learned and proven behavioral patterns stop working, traditional logical thought patterns are ineffective, potential solutions are so diverse that this variability causes fear.

In such a situation, the greatest difficulty is the ability to understand how to resist uncertainty, how to achieve certainty in such an emergency life situation and come to a particular result [7]. Uncertainty has long been a topic of research by scientists, several concepts have been devoted to this problem: from classical scientific research by Kahneman, D., Tversky, A. to fundamentally new options:

- psychology of social instability, Soldatova, G.U.;
- personology of maladaptive behavioral reactions, Petrovsky, V.A.;
- psychology of psychological systems independent organization, Klochko, V.E.;
- psychology of problems, Poddyakova, A.N.

Despite the large number of theoretical approaches, when a critical uncertain situation arises, there are much more questions than answers from the scientific community.

A possible individual reaction to an uncertain state of affairs is proposed and formulated by Lyotard: mankind is increasingly divided into those who are ready to accept the difficulties, and those who are trying to simplify the reality where they have to exist. Uncertainty in such a theory is the bifurcation point of two currents:

- mastering the problem, the uncertainties of our time (civility);
- the desire of social structures to adapt to conditions, to achieve an equilibrium position, eliminating uncertainty, and to simplify the world in order to exist in a simplified reality (archaic) [8].

A situation of uncertainty is always traumatic for the human psyche, such experience is a direct encounter with trauma. Freud said that the transformation of any, even the most harmless case, into a traumatic one was determined by the individual’s personal susceptibility. It is necessary to distinguish between fear and fright. Fright accompanies a situation where a person is afraid of something likely to be dangerous, painful, or threatening. There is clearly known specific source that intimidates the person. Fear is caused by the expectation of some kind of danger, but the essence is unknown for an individual [9]. The pandemic, the need to adhere to the regime of self-isolation are the conditions where the fear reaction is formed. Kopak, D.V. noted that the appearance of such a reaction is due to the following factors:

- physical distance, social isolation;
- fear of infection;
- images distributed by social networks and mass media;
- video reports about the deceased;
- fear of losing a loved one or dying;
- fears due to the possibility of losing a job, a source of income or losing a house;
- distrust of the government;
- conflicting information about the possible dangers associated with the disease;
- numerous fake news;
- anxiety over the likelihood of an economic crisis;
- the uncertainty of ideas about what life will be like after the pandemic [10].

In the vision of Zinchenko, V.P., uncertainty is opposed by redundancy, dynamism of means, methods of human activity as well as increased complexity of the inner world. The author notes that the inner world should not just be equivalent to the external one, but
somewhat surpass it in terms of the complexity. Referring to Hegel, Zinchenko believes that the inner world should be more cunning, smarter than the outer.

Rubinstein, S.L., considering the features of the personal inner world, identified two ways of manifestation in the existence of an individual. The first is observed when a person acts within the direct connections that limit the life. A person does not leave the limits of specific phenomena, events of his life and located inside this system, unable to take an external position. A person does not have the tools of reaction and not able meaningfully relate to life as a complex phenomenon. The second way is due to the reflection of life, the process of going beyond the set limits, away from the level of absorption to the level of awareness, that takes place in thoughts. This way is in line with philosophical ideas of the essence of life as well as the attitude developed on the basis of philosophical ideas [11].

Pervushina, O.N. notes that according to the first way, in the framework of an uncertain situation a person experiencing a crisis situation, a chaotic state of things, is not ready for certain actions that will help overcome it. The second way is more productive, since the subject of reflection reduces the level of uncertainty by identifying, realizing the connections, relationships, patterns that the situation is subject to, and also realizes the goals, types of the actions. Individual directs the efforts by changing the current situation in accordance with personal needs [12].

Uncertainty is a problematic factor for people of any age. We focus on students of higher education institutions as a social group that is flexible, able to easily adapt to the updated conditions and rhythmicity of our reality and at the same time it is a community of people who have not mastered enough ways and means of overcoming problems, difficult situations. This group is less able to identify identical situations that happened earlier and build an effective behavioral strategy based on the information found that allows to overcome uncertainty [13].

2 Materials and methods

The research work is focused on determining students’ ideas about the problems associated with the learning process and their own psychological status, due to the need of self-isolation within the pandemic. In addition, the issues of determining the resources that will overcome these problems are considered.

The purpose of the study: to establish students’ ideas about the problems associated with the psychological state and the educational process that accompanies self-isolation within the pandemic.

Research Materials and Methods

Diagnostic tools:
1. Author’s questionnaire. Developed by Zotova, L.E., Sidyacheva, N.V. [14].

The document includes several major points aimed at identifying students’ problems related to the learning process and psychological status accompanying the stage of self-isolation:

- loneliness, conversations;
- perception of others;
- self-perception;
- physical condition;
- emotions;
- ability to manage, control the situation;
- attitude to the need of remote study;
- positive, negative results of self-isolation regime.
2. “Ability to manage, control the situation”. It was created using the scale of psychological personal well-being compiled by Riff, K., adapted to domestic conditions by Fasenko, P.P., Shevelenkova, T.D., etc. Environment control elements are selected. A questionnaire by Maddy S. was used, focused on assessing the resilience of a person. The questionnaire was used in the adapted version of Leontiev, D. Special emphasis is placed on the control scale, and the statements are used selectively.

3. “Self-perception”. It was formed using the self-perception questionnaire compiled by Stolin, V.V., Panteleev, S.R. When compiling the block, separate statements from the source material were used.

Research work has involved 61 students of the Chechen State Pedagogical University. Gender composition of the group: 86% – females, 14% – males. Age of the students involved: 94% in the age range of 18-20, 6% in the age range of 20-22. In the studied situation of self-isolation, 71% of respondents live with their parents, 6% live with other relatives, 14% live with a partner, the couple has no children, 6% live with a partner and children, 4% of respondents live independently.

3 Results

3.1 Block 1: loneliness and social interaction

Isolation impact on unity feeling was determined on the basis of survey offered to participants. It turned out that 26% of respondents faced such a feeling during the period when they were forced to be isolated from society. 4% of respondents indicated that they perceive forced restrictions very acutely. 18% of the group admitted that sometimes the most comfortable situation for them is the lack of social interaction. 4% of the group noted that loneliness causes pleasant sensations; it is preferable to social interaction. 38% of respondents reported that isolation did not change their feelings associated with loneliness; 10% said that in such a situation they felt unity with society.

Students were given the opportunity to choose statements from the presented set of aphorisms that reflect the value of interaction between people, the value of being out of human contact. The task of the respondents is to isolate from the presented list the options that most fully reflect their personal attitude, beliefs that are dominant at the moment.

40% of respondents stopped at phrases related to the value of communication between people. 10% preferred quotes focused on lonely pastime. 50% of respondents preferred both, that is, they simultaneously chose both suggested values.

Students were asked who they would prefer to reconnect with in the form that was present before the pandemic. Distribution of responses:
- 31% with friends;
- 34% with the fellow students from educational institution;
- 22% with family;
- 10% with teachers;
- 3% there is no need to restore the previous format, because the new version of social contact is completely satisfied.

The following survey is focused on situations where is a lack of real communication and covering the need by electronic means of communication, telephone conversations. It was found that the frequency of interaction with friends and family did not change for every second respondent. Every third person began to communicate even more often than it was in the past. 20% of survey participants admitted that they were forced to communicate excessively intensively.
Most often, respondents admitted that self-isolation did not change the experiences associated with the phenomenon of loneliness, and yet every fourth respondent faces such a condition. Students of higher educational institutions have a tendency to lively, vivid interaction, a desire to communicate with people, and the greatest interest is aroused by co-students and friends.

3.2 Block 2: attitudes toward others

The students involved in the study were interviewed to identify ideas about the prioritization of social attention: what age needs special resources.

Analysis of the responses received:
- 63% said that the most priority age group is the elderly, because they are more vulnerable to the disease, which means that more resources should be allocated to them;
- 34% felt that an even distribution between young and elderly people is necessary, since everyone is at risk of getting sick;
- 2% expressed the following opinion – priority positions should be given to the younger generation, since they determine the future of the country, which means they have the right to claim great care.

Students were asked to think about the situation with migrants, provided several options for resolving the current situation for analysis. The situation is quite sensitive migrants cannot leave the country, return home, get help from their homeland due to the restrictions imposed.

The survey results showed that opinions were distributed diametrically. The first position that was supported by 35% of the group is the belief that the destiny of all the migrants trapped by the pandemic is responsibility of State. The second position is confidence in the need for deportation from Russia. This opinion was shared by 37% of participants. Every fifth respondent said that migrants should take care of their needs on their own, and 2% of respondents are sure that taking care of such people is a social duty that must be shared by the entire Russian society. 6% admitted that they have no opinion on this issue.

Mostly students believe that social attention should be focused on the elderly, since these people are more in need of help and support in the conditions of the epidemic. It is noted that this group has greater rights than the student group, and its well-being in the current situation is a priority. Regarding the problems of migration processes, the opinion is radical, the priority position in the vision of the respondents were taken mainly by Russians.

3.3 Block 3: attitudes toward self

It was decided to resort to the self-attitude questionnaire compiled by Stolin, V.V., Panteleev, S.R. in order to determine how the study participants feel about themselves. When formulating the statements, the authors proceeded from the basic phenomena: self-acceptance, self-sympathy, self-interest, self-respect.

It turned out that the majority of the surveyed university students showed moderately high attitudes toward themselves. Many of them answered questions related to the acceptance of their own characteristics, traits and specifics positively. The students noted that they do not perceive as alien even those traits that they consider negative. This opinion was shared by 71% of respondents.

To assess self-sympathy, the questionnaire includes the phrase “I often get irritated with myself”. 59% of respondents gave a negative answer to it. 75% noted that they show interest in themselves. To access this phenomenon, the test includes the phrase “In the case
of my bifurcation, it would be interesting for me to communicate with my copy”. To access self-esteem, the test contained the remark “What is happening inside me is usually clear to me”. 82% of the participants gave a positive response.

Thus, respondents mostly have a high degree of positive attitude towards themselves.

3.4 Block 4: physical condition

Survey also got information on changes of student’s everyday life. 45% admitted that the frequency of meals increased, 55% gave a negative answer. Questions on physical exercises, daily workout gave the following results: 49% of respondents exercise regularly, keeping themselves in shape. 51% admitted that there are no physical activities in the conditions of a pandemic.

According to the results of the study, it is possible to diagnose with confidence the problem of physical fitness of students: the frequency of meals increases, the saturation of everyday life with physical activities decreases.

3.5 Block 5: emotional state

When conducting surveys of students, attention is paid to the emotional saturation of life. First of all, personal reactions related to reading the news, listening to radio are considered. 54% of respondents admitted that they are interested, 51% noted that information obtained arouses fears. 45% feel the anxiety of the situation, 28% described the emotional state as hopelessness. A calm state, confidence in a positive future reflects the views of 24% of respondents, and 16% faced despair. 14% of students admitted that the news causes them surprise, awaken fear. 4% reported pride, the same number of respondents told about the feeling of shame. 17% are convinced that official statistical reports show the current situation, 73% are sure that the real situation is much worse, 6% believe that the current state of affairs is significantly better than the one presented in mass media.

Students were interviewed to determine what causes them concern during the epidemic. 78% reported that the main reason for concern is the health of loved ones. 41% are worried about their own health. Since the pandemic is associated with limited mobility, it is impossible to afford a trip; there is no opportunity to travel and even to move freely, this situation is also included in the questionnaire. 47% reported that it causes discomfort, makes them worry. 41% reported that they are worried about a possible economic crisis, worried about a drop in material well-being. 37% of respondents said that they are afraid of a decrease in the quality of the educational process due to the current situation. 29% reported concerns related to a decrease in the volume of social interactions, 18% reported experiencing psychological problems when they found themselves in self-isolation. 11% identified the loss of a workplace as a special problem. 8% of respondents reported that the negative impact on the emotional spectrum is due to the impossibility of previous sports activities, as well as everyday problems.

In the conditions of self-isolation, the emotional instability of the respondents was recorded. Most students experience negative emotions while listening and watching news programs. Students are worried about issues of health, material well-being and opportunities to move.

3.6 Block 6: environment management, situational control

The list of questions in this part of the study includes a number of replicas that students need to agree or express how much they disagree.

“I completely cope with daily problems”: 86% confirmed, 14% rejected.
“I am constantly monitoring the state of things to the extent that it is required”: 86% confirmed, 13% rejected.
“At any moment, I am able to influence the outcome of what is happening around me”: 55% confirmed, 45% rejected.
“Sudden, unpredictable problems sometimes cause me severe fatigue”: 80% confirmed, 20% rejected.
“Problems that appear in everyday life are often assessed by me as impossible to solve”: 46% confirmed, 54% rejected.
“I do not have the capabilities, tools to influence sudden problems”: 5% confirmed, 85% rejected.

Students were interviewed in order to identify from whom they primarily expect help if a difficult situation arises. The results are as follows:
- 88% – family;
- 71% – friends;
- 22% – themselves;
- 20% – state aid, personal connections;
- 12% – university.

Students of a higher educational institution who are faced with the need to study in the conditions of a pandemic, control their external activity well enough, and can effectively use the opportunities that open up for them. They have the tools to create the conditions, circumstances in which they will be able to realize their own needs, come to the chosen goals defined for them. Although unpredictable problems make the interviewees tired, students do not lose confidence that active actions are a means of influencing the outcome of the situation, even if they cannot have an absolute impact and cannot talk about a 100% probability of success.

In a difficult situation, respondents are more likely to seek help from close people, while authorities, institutions, structures take a back seat.

### 3.7 Block 7: attitudes toward distance learning

The students were asked if they had equipment necessary for distance learning. 53% of respondents believe that they have everything they need, 33% noted that they are almost fully provided, 14% said that they do not have a sufficient variety of technical means.

The respondents were asked, focusing on a five-point scale, to describe their abilities and skills in using online platforms that allow them to study and communicate via video. The maximum score is 5 points, where 1 point corresponds to the worst degree of proficiency. The minimum score for their skills was set by 1% of respondents, 14% of participants rated their skills by two points, 24% reported a satisfactory degree, 49% recognized a degree above average, 10% rated their abilities by the maximum score.

The students were asked to describe how effective the training is, whether it is possible to work effectively while in the classroom remotely. The results are as follows:
- 13% – the degree of efficiency has increased;
- 22% – the efficiency level corresponds to the previous;
- 65% – the degree of efficiency has dropped.

41% of respondents admitted that the best option of the educational process is face-to-face, 39% reported that they consider the best opportunity for a mixed education, in which most of the time is allocated for face-to-face classes. 12% felt that a mixed option, in which distance learning takes up most of the time, is preferable. 8% are sure that the best solution is a completely remote learning process.

In conditions of self-isolation, distance learning for university students attracts some features, repels others.
The advantages of this form noted by students:
− releasing the time, since there is no need to get to the place of study and back, which means you can devote more hours to developing yourself, hobbies, study;
− comfort – such training is mobile, convenient for those whose opportunities are limited, preferably if the student has children or parents in need of care. In addition, with this format, a person feels more flexible;
− the increase of educational process efficiency due to the need to show maximum independence, be more responsible, master modern electronic techniques, technologies;
− economic benefit – no need to spend savings on transportation, food;
− reducing risks, since there is less chance of becoming a victim of a criminal on the street, the risk of road accidents is reduced.

Revealing the vision of the distance learning disadvantages the students drew attention to the following factors:
− there is no live interaction, it is impossible to communicate directly with fellow students, teachers;
− the workflow is organized with shortcomings, since both students and teachers do not have the appropriate experience, materials are provided with insufficient quality, feedback is slow, there is not enough practice-oriented information, students do not receive a sufficient variety of practical examples;
− shortage, low level of information resources, insufficiency of formed systems for remote education and technical resources of students, low quality level of communication;
− problems caused by the organization of the human psyche: the difficulty of self-motivation, lack of external control, lack of volitional regulation of the process;
− economic problems caused by the need to buy an equipment, pay for electricity. In addition, students enrolled in paid form of full-time education bought exactly full-time program and do not want any other;
− the harm to health associated with insufficient physical activity, the harm of computer technology to eyesight.

Basically, the respondents admitted that they have a sufficient set of technical means, have a good command of online resources, but do not consider the educational system effective in the conditions of distance learning. The main disadvantages they attributed to the inability to communicate live with fellow students and teachers, the lack of organization of the educational process. Among the advantages, attention was focused on saving time, everyday comfort.

3.8 Block 8: positive and negative consequences of the self-isolation regime

The students were asked to formulate the positive and negative consequences of self-isolation. The respondents’ views on the positive aspects can be divided into categories as follows:
− meaning, values of life – close relatives, relationships with others, the importance of existential life, shifting attention to understanding values, understanding reality;
− getting new social, personal experience – prevention of negative events caused by nature and human activity, gaining experience of autonomous, independent existence, experience of unity of powers and expansion of cooperation between countries, interest in environmental problems;
− activities within the framework of study and chosen profession, including the value of such activity, the opportunity of creativity in the chosen field, obtaining new working skills in the virtual space.

Negative consequences of the self-isolation period in the vision of students:
– the global economic crisis, loss of jobs, deterioration of material well-being, a decrease in the quality of life of various social classes that are poorly protected from aggressive factors;
– loneliness, feeling of helplessness, lack of communication;
– loss of job, loss of qualifications, decrease in the quality of education received;
– the growth of distrust in the system of state governance, an increase in the frequency of crimes, domestic violence, the activation of the power’s control over people’s lives;
– illness, death of loved ones, violation of life habits corresponding to the idea of maintaining health, addiction to alcohol.

Students highlight the negative and positive aspects of forced self-isolation caused by the epidemic. Increasingly, respondents mention the negative consequences of the situation. Positive ideas are associated with value, meaning of life, negative ones are mainly concentrated in the economic sphere.

4 Discussion

The analysis of the research work carried out makes it possible to identify methods for improving the psychological stability of people studying at a higher educational institution.

The research was organized in order to work out a comprehensive solution aimed at improving the mental stability of students of a higher educational institution. The program is focused on acquaintance and study of psychological techniques of development and self-development that allow to activate internal personal resources, make the psyche stable, and improve the skills of reflection, subjectivity. In total, the above forms the basis for the effective formation of students both in the personal aspect and as professionals in their field.

The information revealed in the framework of the pilot experiment will be used in the formation of the author’s solution in the field of creating psychological personal stability of higher educational institution students in conditions of forced isolation as an element of the psychological personal paradigm of stability.

5 Conclusion

For a student of a higher educational institution, psychological stability is an integral parameter that has a systemic character. This is the basis of the human ability to independently regulate self-activity, to adequately respond to exogenous, endogenous corrections of the situation. Within the framework of this integral system, a person implements an individual method of organizing life activities, as well as the environment, in order to guarantee the ability to fulfill personal needs and achieve psychological well-being.

The COVID-19 pandemic with forced self-isolation is a situation saturated with uncertainty. Uncertainty is a factor that traumatizes the human psyche, provoking fear. The opposite of this phenomenon is the ability of a person to reflexively experience a situation, rise above it, consciously relate to what is happening, using external, internal tools and resources [15].

The respondents recognized the advantages and noted the weaknesses of the distance format of the educational process. Most of them believe that the face-to-face form of education is more attractive, everyday traditional interaction with fellow students and teachers is preferable, but they also see positive aspects of the current situation. Positive expectations are mainly concentrated in the sphere of life meanings; negative ones are associated with the economic aspect of everyday life [16].
It was revealed in the course of the work that psychological support of learning, focused only on the formation of an empathically helping environment for students does not allow them to use different methods of overcoming problems, gain sufficient experience, realize it and become more confident in themselves, which means there is no way to increase psychological stability until the conditions of psychological support change.

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Formation of representations about the world of professions among children in primary school

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Abstract. The article presents the results of analytical work aimed at identifying the representations about the world of professions among primary school children. Within the framework of the study, the idea of the world of professions is considered as a factor that determines self-consciousness. Children in primary school are going through a period when cognitive activity takes a leading position and dictates how an individual will develop in the future. During this period, the work on expanding the child’s ideas about the world of professions becomes particularly important. One of the disadvantages of the educational process is that the child does not receive sufficiently complete, reliable, up-to-date information about different professions, which means that a child is not able to form a full-fledged idea of various job opportunities in the future. The features of some activities are difficult for child to perceive and realize. When a person makes an unconscious choice, it would be hard for him / her to find a place in society in the future. At the same time, any profession includes areas that can be demonstrated visually, illustrated with everyday life situations, colorfully described with curious stories, cases, impressions that an adult working in this field received during work.

Keywords: primary school, professional representations, work activity

1 Introduction

At the moment, the Russian education system is undergoing a period of active modernization, improvement in accordance with current social, technical requirements and conditions. Primary school is one of the stages of the educational process that needs to be changed and improved. Despite the situation of mastering the new, the school must solve the traditional tasks facing it within the framework of teaching children, as before. Considering this in the context of primary school, it is necessary to highlight the importance of school influence in preparing a child for a conscious choice of profession in the future.

One of the disadvantages of the educational process is that the child does not receive sufficiently complete, reliable, up-to-date information about different professions, which means that he / she cannot form a full-fledged idea of various job opportunities in the future. The consequence of information lack is an unconscious choice made by many

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graduates of the school. In the future, these people facing difficulties when looking for a place in society, and some of them cannot find a suitable sphere at all.

The ideas about professions that a child receives while studying in primary school turn into the foundation for the formation of self-awareness. Based on this information, value attitudes are developed over time, helped to determine the appropriate sphere in the future.

However, the organization of the workflow is not sufficient enough because educational institutions working with primary school students are being modernized. As a result, children get acquainted with the world of work chaotically, episodically, spontaneously. In order to correct the situation, a systematic approach to the workflow is needed, aimed at the appearance of an accurate, up-to-date picture of professional activity among schoolchildren. This is the only way a child in the future will make a meaningful choice, make decisions confidently, choosing a suitable profession with clear self-definition [1].

The problem of representations is one of the most significant scientific problems at the present time.

The essence of the term representation in the interpretation of psychology is explained by the philosophical content of the phenomenon. There are two options of interpretation: from the point of view of philosophy and psychology.

The first presupposes the understanding of the phenomenon as a sensory object image received by human consciousness. The performance is accompanied by a feeling of lack of what a person represents.

The second interpretation: the process of creating objective images in thoughts, phenomena that currently affect feeling [2].

The basis for understanding the term is an image that appears due to external factors in the sensual personal sphere of a person.

General psychology, referring to the term, identifies it as a process where a person learns the reality. This interpretation is characteristic of the works of Rubinstein, S.L., Gippenreiter, Y.B., Druzhinin, V.N. et al. Social psychology suggests placing accents in a different way: the most noteworthy aspects of the concept are related to functioning in society, interaction with other participants of society. This vision is demonstrated by Abric, J.-C., Moscovici, S., Jodele, D. et al. [3].

Referring to the initially posed problem, it is necessary to reveal the social, psychological essence of the representation, to show it as a changing problem, given that the understanding of another important term – professional representations depends on its interpretation.

The theoretical foundations of the science dealing with social representations are laid in the works of Durkheim, E., Weber, M., Simmel, G., Levi-Bruhl, L., Piaget, J. This narrow science itself is highlighted by Moscovici, S. The concept and scope were expanded, supplemented as the audience grew in agreement with the author’s theories. Abric, J.-C. noted in his works that representations are a cumulative phenomenon, systematized views, a set of established beliefs, received information. Jodele, D. proposed 6 options for identifying the essence, the idea of the concept:

- cognitive activity focused on the systematization of representations;
- formation of representations taking into account the cultural basis;
- understanding the phenomenon as an element of the communication process;
- influence of the real experience gained by an individual within the life on the representations formation;
- appearance of the phenomenon as a result of relations between social groups;
- influence of ideology dominating society.

All of the above is a brief theoretical context for the creation of the representations concept by sociologists of Western Europe.
In Russian psychology, the problematic of representations is analyzed by a key understanding of the image of the world. The term appears in the works of Leontiev A.N. Author uses it to formulate the following conclusion: each person forms his / her own image of the world, being active, starting from the usual life situations and the environment [4].

The problem of representations does not lose relevance for sociology, psychology, and the subcategories of their branches. The topic is considered in numerous scientific studies organized around the world.

Detailed examination of the works of Zavalova, N. D., Lomov, B. F., Konopkin, O. A., Oshanin, D. A., Shadrikov, V. D. and others makes us able to notice that the authors consider the idea of an image to be a mental phenomenon, operate on it, determining where and how representations are formed. Many Russian researchers, when working on social and psychological problems, paid special attention to the representations about the profession and the importance of their formation in the process of pedagogical, psychological activity. Defining professional representations, they undoubtedly identify them as a complex education, a phenomenon that has the functions of prognostics, reflection, regulation, motivation, evaluation; those representations are exactly the ones making a person successful in chosen profession. Based on the data obtained during the study, the conclusion is formulated that a person’s representations about a profession are the basis for building the self-awareness in this area. The formation of these representations is a key condition for realizing the optimality of the profession choice being made. If there are no such representations a person will not be able to determine a sphere, an area for future profession taking into account personal interests, opportunities, talents, aspirations.

Narrow aspects of activity within the profession are considered in the experimental research works of Ponomarenko, V. A., Sizov, K. V. et al. [5]. Semenova, E.A. studying the activities of a person in the chosen professional field, believes that it is necessary to analyze representations in the context of two aspects:

- features formed within the framework of historically established worldviews;
- individual representations related to personal experience gained in the process of living [6].

Dontsov, A.I. and some other authors analyze ideas about the sphere of labor activity as a way of regulating the determination of their optimal field of work.

The works of Rogov, E.I. made a great contribution to the topic under consideration. They are focused on the study of issues from the point of view of an individual’s independent awareness formation in the most suitable profession [7].

Representations are a key factor that form a true professional of business [8]. Analyzing what Rogov formulated we can understand how important is the work with schoolchildren in order to convey information about the world of professions at a level appropriate to their degree of development. Thus, the representations foundation is formed, that allows a person to find himself / herself in the future in a situation of choice and make an error-free decision.

The problems of representations about the field of activity have been studied in the works of Russian researchers from other angles also. The author’s works of Pankratova, I.A., Rogova, E.E. and other authors are especially interesting. With a systematic acquaintance with their content, it is possible to analyze the mutual connections of professional activity representations and personality characteristics. In particular, this analysis is disclosed in detail by Simchenko, A.N. [9].

At the state level, standards have been adopted to regulate the learning process so that, as a result of the updated version, school graduates have sufficient competencies, acquired information, formed models, and can independently choose a suitable field for themselves.
The formation of representations about work among preschool children is a problem considered in detail in the theoretical works of Kryagzhde, S.P., Elkonin, D.B. and et al. Loginova, V.I. notes that the acquired information about work, the attitude to work adopted from the older generation is the basis helping the child to form individual images and to receive intrapersonal regulators that will further control the child’s behavior. Motivation, an attitude to the need for work, to the work of close relatives and to objects created by people depends on external factors learned in the early period of personal development. Rogov, E.I. believes that the interests associated with work, inclinations in this area arise when the primary ideas of the child about the profession are formed [10].

The peculiarity of the younger school age group is the desire to imitate the elders in everything. Focusing on the professions of people important for child is one of the ways to realize this aspiration. The child looks at the profession of parents, teachers, close relatives, educators, and friends of parents: those people the child built trusting relationships with. Another specific feature of this age group is the main activity, that is, study. Bozhovich, L.I. considering it, notes that for a child studying in the lower grades, study is not only a source of information, but an activity that gives rise to associations with the work of an adult. For them, studying is also work, an area in which a person hopes to become successful. Psychological, physiological nuances, opportunities of this age group are such that this age is optimal for a child to have an idea of the diversity of work. Sazonov, A.D. who noted the complex of children’s predispositions: curiosity, the desire to keep up with studies, the ability to experience joy when achieving even minor success, receptivity, and openness focuses on it [11]. Within the study in the school the child is sensitive, which means that this period is optimally suited for the formation of representations about the world of professions. This idea fully corresponds to the representations of psychologists about the younger school age group.

In order to lay a child’s vision of the world of the profession, it is necessary to involve a teacher who is characterized by an adequate assessment of professional competencies, as well as a pronounced professional self-awareness. The essence and features of the working process taking place in primary school depend on the qualities of the attracted adult. It is the teacher who forms the pedagogical conditions in which the self-consciousness of the younger generation will appear in the context of the field of activity choice [12].

2 Materials and methods

The research work was carried out in order to assess the representations formation about the world of professions among primary school children studying of the third grade. The study involved 18 students. During the implementation of the work, the following revised methods were used, taking into account the characteristics of the specified age group [13].

Drawing Method.

Aim: to establish how well the respondents’ ideas about professions are formed, what is the established attitude, how much children are aware of the professional affiliation of people whom they interact closely with.

Methodology: three sets of images. Each set consists of five cards demonstrating five professions. When choosing work areas, the classification of Klimov, E.I. is taken into account:

- human – human;
- human – machine;
- human – sign system;
- human – art [14].

Formulating a list of activities, we analyzed the degree of probability of the respondents’ acquaintance with such types of job, considering their demand in the Chechen
Republic at the moment. The images show the principle of sexual separation: people of both sexes are depicted evenly. The tasks offered to children are formed taking into account the peculiarities of age, personal nuances and specifications, opportunities.

After the preparatory work, the students were shown images of people working in following professions (Table 1).

<table>
<thead>
<tr>
<th>Set number</th>
<th>Images of professions representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set 1</td>
<td>teacher, driver, agriculturist, programmer, artist</td>
</tr>
<tr>
<td>Set 2</td>
<td>doctor, car mechanic, gardener, writer, piano player</td>
</tr>
<tr>
<td>Set 3</td>
<td>salesperson, draftsman, veterinarian, communication provider, actor</td>
</tr>
</tbody>
</table>

Job Description
The study involved 18 students of the third grade.

The methodology is a personal study of the task. The work is supervised by a teacher.

Tasks:
- determine the professional sphere where depicted person is involved, write under the picture the name of sphere;
- select from each set an image associated with a sympathetic activity, draw a plus sign in the right corner of the image;
- find a picture associated with an unpleasant field of work among the remaining set of images, draw a minus sign on the top right;
- write the name of desirable job for a child as he / she grows up on one of the images;
- specify on the same image the profession of interviewed child’s close relatives.

“Unfinished sentences” Method.
Aim: to establish the intentions in the context of activity type for children studying in the third grade, to identify why such preferences are formed, to assess how well the respondents understand what efforts will have to be made to achieve the desired.

Task: to help children realize how important it is to work regardless of the profession they like, to focus their attention on the fact that pretty soon they will have to choose their occupation, to interest participants in professions as a source of labor that will benefit society, family, and the child personally.

The projective personal technique is applied. The basis is the verbal completion of a statement started by another. The method is easy to implement and flexible. It can be easily adjusted to a variety of tasks and aims. In the corrected form, it is used in an extremely diverse context, relevant for most diagnostics.

The participants of the experimental work were given incomplete sentences. Some were repeated, but the wording changed. It allowed to increase the reliability of the results, to collect as much information as possible. Paper forms with incomplete replicas have been prepared in advance. The task of the participants was either to finish the phrase using the suggested beginning, or write their own replicas [15].

Unfinished sentences selected for work:
- On the way to school I like
- I am interested in the profession because
- At home I’m always
- In every profession, a person will have to
- When I’m free, I like
- When I grow up, I dream of becoming
- I want to watch a cartoon about
- I would like to devote my life to work in the field of
• My favorite time of the year
• To make my dream come true, and to become a valuable employee in the field I like

Process

During the experiment, we asked the students to: think, formulate, write on a form an
answer to the proposed started replicas.

Further sequence of actions was as following:
1. The children received the forms.
2. Students read the materials.
3. The teacher clarified whether everything is clear to the group.
4. The teacher read each remark out loud, gave comments if the participants
misunderstood the essence of the phrase.
5. 40 minutes were given to complete the work.
6. After collecting the material, the teacher thanked the group.
7. It was clarified that the information received would be applied when choosing the

topic of the essay.

For the purpose of analytical research of the obtained information, three levels were

applied: high, medium, low.

Evaluation criteria:
• high level: the child knows all the demonstrated professions;
• average – the child was able to identify 6-10 pictures;
• low – the child has identified 5 or fewer images.

Analyzing the results, we took into account the priorities of the students, their
arguments in favor of choosing a specific field of activity, motivation when formulating a
rejection of any direction. It was considered also how much the child’s intentions coincide
with his preferences related to career and work [15].

“Unfinished sentences” Method.
Levels:
• high: all sentences are finished, completed to the point;
• average: 5-7 phrases are fully completed;
• low: less than 5 replicas have been added.

Studying the results, we analyzed not only the content written by children directly, but
also linked it to the level of intentions in the preferred field of activity, due to the
knowledge of professional fields available to children.

3 Results

The results of the research work allow us to assess the representations formation about the
world of professions among primary school children in the number of 18 people studying of
the third grade. When calculating the results, 100% are 18 people. The results are shown in
the general Table 2.

<table>
<thead>
<tr>
<th>Levels/Methods</th>
<th>Method 1</th>
<th>Method 2</th>
<th>Total on average</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>4/22</td>
<td>6/34</td>
<td>5/28</td>
</tr>
<tr>
<td>Average</td>
<td>8/44</td>
<td>7/38</td>
<td>6.5/41</td>
</tr>
<tr>
<td>Low</td>
<td>6/34</td>
<td>5/28</td>
<td>5.5/31</td>
</tr>
<tr>
<td>Total</td>
<td>18/100</td>
<td>18/100</td>
<td>18/100</td>
</tr>
</tbody>
</table>

The table allows to analyze and demonstrate the average performance of the group:
• high level: on average 28%, according to the first method 22% (4 participants), according to the second one 34% (6 people);
• average: 41%, which are 44% (8 children) according to the first method, 38% (7 children) according to the second one;
• low: 31% or 34% (6 participants) and 28% (5 participants).

It was assessed how attractive professions seemed to children, what were their preferences:
• 45% – programmer;
• 35% – car mechanic;
• 30% – veterinarian.

The least attractive professions were:
• 37% – salesperson;
• 31% – agriculturist;
• 28% – actor.

The next indicator is the degree of accumulated knowledge about the fields of labor activity.

Results:
• 22% of children correctly identified 15 professions;
• 44% of children correctly identified less than 10 professions;
• 34% of children found the definition for 6 or less professions.

The study showed an acute moment – children could not identify without problems and errors even those professions that are well known to them, although when choosing the material for testing, images were selected that best correspond to children’s reality, everyday life. Some children wrote not the name of the profession, but a description of the specific actions of the specialist, others noted only the name of the main action performed by the person in the picture. This is mainly due to the child’s blurry idea of the depicted field of activity. Among the answers there were cases of substitution of the concept for an abstract description of a character – a characteristic of the surrounding space or the appearance of a person. Such answers were not at all related to the question under study.

Children have only limited information about the world of professions, about what a specialist's workday consists of, what are the advantages of activity areas. It is especially noticeable when analyzing the arguments used by schoolchildren, noting the professions they like and the professions cause negative emotions as well as the reasons for such reactions.

Regardless of gender, the students noted that the most preferred professions are: driver, doctor, teacher, programmer, athlete, veterinarian, cook, designer, car repair specialist. There was a neutral or negative reaction to other areas of activity.

Checking the intentions for choosing the field of activity in the future showed that the general ideas of schoolchildren correspond to their ideas about the activities of specialists in this direction. Compliance was revealed in 61% of cases: if a child likes the profession of a designer, that's what he / she wants to work with, if a child is attracted to working with cars, he / she is going to study Automotive Engineering in the future. More than a third of the group (81%) did not have the same current preferences and an assumed independent definition: children could choose an image of a doctor as the most attractive, but do not want to work in this field. Argumentation of the reason why children like or dislike certain options provides the most useful information for assessing the communicative readiness to choose preferences in the context of work. The answers mostly turned out to be simple, concise, and uninformative. It shows a lack of knowledge and understanding of professional section, even taking into account the fact that the reason for the low information content of the answers is the insufficiently high degree of development of communicative and speech skills. The purpose of this research work is to determine the
degree of knowledge accumulated by the respondents about what professions are, therefore, the information obtained is applicable within the framework of the issue under study.

4 Discussion

The results of the organized research work devoted to the identification of the current level of representations about various working areas in a primary school age group. Research work was implemented on the basis of the Chechen primary school; prove that in general terms, grade 3 students have unclear representations about what professions are. There are no prerequisites for children for determining their path in the field of work. The data obtained during the diagnosis of the situation showed the main problem of the age group is the selection of professions assessments based on emotions and the formulation of attitudes to different fields of activity, taking into account only the sensory perception of this area. Within the framework of the tasks set for the current study, emotional evaluation as a phenomenon is a prerequisite for the formation of cognitive interest in this area. Due to such interest the motivation of the child is possible and the desire to expand and deepen knowledge in the chosen direction. It fully confirms the regularity of the psyche development: the emotional personal aspect is ahead of the cognitive one in its development, so the child needs a reasonable direction from the teacher. The task of the older generation is to implement the function of control and assistance.

The data revealed during the study is the basis for approaches selection for the organization of the work process in order to create representations about various types of work among the children. The main working principle is to take into account the dominance of the profession’s perception at the emotional level. Taking into account the emotional factor is fundamentally important, since such attitude is exactly the one that gives impetus to a child at an early age to the emergence of stable motives, and directs the child to the path of cognition, at the same time saving him / her from choosing between spheres initiating negative emotions.

5 Conclusion

The study of theoretical, scientific works, the ways accepted in pedagogy, methods of creating representations about the world of professions in the primary school, the study of the degree of such representations as a factor in the formation of self-awareness in the aspect of choosing a profession allows us to conclude that the expansion of information about a variety of professions must be implemented among schoolchildren have to take into account features of the child's psyche in this, and especially the fact, that emotions dominate in determining the attitude to a possible variant of labor activity. The emotional factor explaining the peculiarities of the psyche in this age should become the basis for the elaboration of a system of conscious representations about various areas of work. The larger the palette of ideas about professions, the more effectively children will develop personal intentions in this area, which means they will be able to orient themselves in the world of work as they grow up, meaningfully choose the right direction for themselves. The practical result of the work carried out is methodological recommendations intended for parents, teachers, focused on optimizing the process of creating children’s representations about professions variety as a factor in the formation of self-awareness in the aspect of work.

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Psychological resilience of future teachers as an important quality for the formation of professional competences

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Abstract. University education involves not only mastering a profession, but also the formation of a number of competences (social and psychological ones) that contribute to the formation of student resilience as the basis for personal growth and self-fulfillment, as well as success in future professional activities. For a teacher, psychological resilience and the ability to support the state of subjective well-being is the main condition for successful work throughout the entire period of extensive professional activities. Professional requirements in the pedagogical field within the meaning of modern psychology include the acquired ability to control the manifestation of emotions in the process of solving a difficult situation, making a decision fraught with difficulties. A teacher gradually gets used to hiding emotional experiences. Against this background, personal well-being gets worse, emotional overstrain grows. These factors negatively affect the psychological health of a person. The task of any teacher is to be a psychologically stable person who does not cease to improve independently. If the teacher’s conservatism, the habit of behaving according to an already developed pattern turn into personal characteristics, this affects the thought process as a whole, hinders independent development, complicates the adaptation to corrective external conditions. Rigid thinking, behavioral reactions are the factors hindering creative pedagogical work.

Keywords: safety of psyche, pedagogical competence, self-actualization, subjective well-being, psychoprophylaxis

1 Introduction

For psychology as a theoretical and practical science, one of the main problems under study is the growth of psychological personal stability as a means that allows a person to develop personally and within the chosen profession. A lot of research has been organized and implemented, focused on the study of methods, means, through which a person may develop qualities, strategies that are most useful in solving conflict, problem situations, as well as methods of dealing with negative intrapersonal factors. Psychological stability is

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studied in the context of the current situation, as well as through the study of personality, its specificity, i.e. aspects that indirectly allow interacting with the situation and behavioral pattern.

The terms “resilience”, “stability” are widely used in psychology. Resilience in Reber’s dictionary means a description of an individual who behaves consistently, reliably. The antonym of the term is “unstable”. Psychologists operate with several definitions:

– a person whose behavioral patterns, moods are diverse, disordered, infinitely variable;
– a person who tends to show psychotic, neurotic reactions, behavioral patterns that are potentially dangerous to others.

The influence of stability on a person is considered by all practical, theoretical psychological subsiences and areas [1].

The works aimed at a detailed study of psychological, mental health are the works of Russian researchers B.S. Bratus, O.S. Vasilyeva, I.V. Dubrovina, G.S. Nikiforov, E.R. Kaliteevskaya, V.V. Kolpachnikova, S.R. Sokolovsky, F.R. Filatov, as well as foreign colleagues in the chosen psychological field – A. Maslow, F. Perls, K. Rogers, V. Frankl, E. Fromm.

The problem of stable maintenance of teachers’ psychological health is an important topic for modern research in this area. The following researchers are working in this direction: A.A. Rean and A.A. Baranova, A.K. Markova, L.M. Mitina, M.V. Moskvina, M.M. Rybakova, I.I. Rydanova and others. All researchers assume that the main requirements for a teacher are as follows:

– resistance to stress loads;
– excerpt;
– optimistic attitude;
– ability to resolve a conflict situation;
– engagement.

Rigid thinking, behavioral reactions are the factors that impede creative pedagogical work, flexible adjustment of a behavioral strategy to a specific situation. Due to such rigidity, a teacher cannot successfully find an atypical solution to a complex task at hand in the course of his professional activity. A teacher who finds himself in a difficult situation, whose behavior and thinking are rigid, resorts to a previously developed habitual method of action. The main weakness of such a strategy is that already formed ways of acting, reactions are no longer critically analyzed, which means that their effectiveness in relation to a specific situation is not checked. Rigid behavior and thinking do not allow quickly switching attention from a stressful situation to a neutral one. As a result, a person is fixed on negative emotions. The stereotyping degree of thinking and behavior is growing, rigidity is increasing – these processes are the more active, the longer an individual works as a teacher. This causes stereotyped actions, makes a person authoritarian, not ready and unable to see and accept someone else’s position. Under such conditions, mutual understanding of the teacher and students is excluded, which means that a group climate that is favorable in terms of human perception is impossible. Against this background, the psychological health of an individual is disturbed.

The consequence of the above factors is an increase in anxiety, increased irritability, the formation and increase of chronic fatigue. If one does not work with the reasons, due to which psychological stability decreases, manifestations of psychosomatics are formed over time.

Summarizing the typical factors in the decline in teachers’ health in the aspect of the nervous system, the authors denote the following trend: the situation is caused by long-term stress of an average level of intensity. It is problematic to cope with it on one’s own, because people perceive this feature as an integral part of the work, which means they see no reason to correct it, change the situation. This explains the requirement for a teacher to
notice in time, identify the manifestations of chronic stress, identify its causes and develop methods for leveling. Psychological stability in the context of stressful influence, especially in a situation of chronic influence, stable resistance to phenomena that do not allow to fulfill themselves, becomes one of the competences that is vital for a person working as a teacher. Among the key skills to be mastered by students trained to become teachers are as follows:

- maintenance of one’s own psychological stability;
- preservation of psychological health;
- expansion of personal competences in the chosen field of activity.

The study of future teachers’ psychological health in the aspect of developing psychological stability was implemented using the theoretical bases recorded in the works of humanist psychologists. Particular attention is paid to A. Maslow’s works. The main sign of mental health in his vision is the desire, attempts to increase personal potential through self-actualization, achievements in the chosen professional field, life in general, as well as the desire to act, taking into account the values of humanism. A. Maslow represented a psychologically healthy person as autonomous, spontaneous, creative, able to accept himself and others, susceptible to aestheticism, with a good sense of humor [2].

Along with other phenomena inherent in the psyche of an individual, psychological stability is a multicomponent phenomenon. It consists of cognitive, affective-emotional and behavioral components.

Definition:

- cognitive component – a nuance associated with the ability of an individual to evaluate, understand, analyze the situation, recognize and take into account the parameters of the external environment, the internal environment of an individual. This is knowledge of one’s own capabilities, the implementation of which will contribute to the end of the conflict;
- affective component – evaluating oneself, emotions initiated by one’s own capabilities, abilities, situation that affects an individual due to its inherent excessive uncertainty. This component combines all conscious, unconscious experiences due to the uncertainty of the external world;
- behavioral component – determination of the optimal strategy of behavior in a difficult situation. It implies a person’s response to an uncertain environment. The stability of the psyche is achieved by the systematic use of strategies that operate with emotions, behavioral reactions, allowing one to control the situation. Coping strategies, mechanisms through which a person protects his integrity are implied.

Psychological stability is an aspect of the individual internal structure, which is the basis for the active improvement of oneself as an individual. This explains the special interest of researchers in the analysis of the phenomenon in the framework of the organization of effective mutual work in an environment focused on learning.

In a space designed to solve learning problems, the systemic psychological support of an individual is organized by processes that can be described by three criteria for support-oriented relationships. They are presented in K. Rogers’s works: congruence, acceptance, empathy initiated against the background of a natural inclination to trust human nature [3].

As mentioned earlier, in scientific publications on the topic under consideration, stability is a characteristic by which they describe the persistence of the psyche, individual traits, properties of behavioral reactions, mental structure, organization, consistency, orderliness of activities in the chosen profession, motivation, focus on results.

Within the framework of the considered issue, it is necessary to define the essence of emotional volitional stability. In various psychological sciences, the stability of the psyche is considered when operating on special grounds. Behaviorists use two theories to analyze the essence of psychological resilience. The direction of A. Bandura’s social learning
analyzes the fluidity of mental structures characteristic of an individual in a specific situation. G. Allport’s theory of traits is focused on the dialectic of stable and variable personality traits with proof of the relative stability of personality traits.

Gestalt psychology, which is especially evident in the works by K. Levin, F. Hoppe, T. Dembo, explores dynamic goal setting, the structure of this process and highlights the significance of both a private goal and a large-scale task, under the influence of which the behavioral system as a whole and individual actions are laid.

Humanistic psychology considers psychological stability as part of the study of the mutual influence of components of the personality structure and self-concept elements. Such postulates can be found in the works by E. Burn, R. Burns, K. Rogers and others. The self-concept in the context of this approach is perceived as relatively stable. It can be understood to some extent. This is a unique system of human ideas about oneself and relations with the world, serving as the basis for highlighting the goals of self-fulfillment, determining the strategy for interacting with other persons.

The problem of the stability of personal psychology within the framework of specific parameters of personality, consciousness is the central topic for the study of Russian psychologists. The emphasis on the stability of the processes occurring in the psyche is put in the study of constancy of the processes caused by the organization of the human nervous system and implemented through higher nervous activity; scientific research considers the issue from the positions of physiology, psychophysiology, reflexology. Researchers are interested in unconscious, conscious variants of the manifestation of higher nervous activity. This is the subject of research by V.M. Bekhterev, I.P. Pavlov, I.M. Sechenov. Situations are also analyzed in which mental stability is necessary and can manifest itself. In practice, particular interest and value are inherent in research works focused on various types of mental stability of a person who finds himself in an extreme situation [4].

Within the framework of psychophysiological, physiological research works, the concepts of emotional and emotional-volitional resilience were elaborated, defined and deepened. The traditional interpretation of the term is the ability of the psyche to maintain a high level of activity that satisfies the environment in the context of negative impact, conditions, activities. O.A. Sirotin defines the term as a personality trait intertwined with the reliability of a person’s functioning in an extreme situation. He notes that the emotional stability of an individual is clearly visible at the moments when his activity is implemented in extreme conditions. Also, extremeness usually provokes an increase in the role of the key qualities of the nervous system in determining personal behavioral specifics, as well as the activity of a person as a whole [5]. A.M. Abolin interprets the concept under consideration as the ability to implement complex, demanding tasks in a difficult situation that causes intense emotions. However, a person is not caused severe harm to health, well-being, the ability to work [6]. L.V. Zavarzina formulates the essence of the term as the ability of an individual to resist danger, control, process, experience negative emotions, physical impact – external, internal influences on the psyche of a person in an extreme situation, when there is a threat to life [7]. The extreme situation, which some researchers mention in their interpretations and definitions, includes a complex of factors and aspects of activity in the chosen field of work, as well as the performance of official duties – a head, a military officer, a security guard, a manager. The essence of psychological, mental stability is a special personal and professional orientation, action in accordance with specific, clearly defined goals [8]. In this interpretation, mental stability is interconnected with a person’s ability to resist an extreme situation. This skill is formed due to a set of qualities:

- intellectual development;
- competence in the aspect of communication;
- professional competences that allow success within a certain professional area.
L.V. Zavarzina studies emotional and volitional resilience as a tool, through which an individual resists danger, his ability to process negative emotions, physical influence on the psyche, if the situation is such that he feels a threat to life.

The foregoing allows understanding the reason why in psychology mental resilience is a complex concept, the stability of certain processes occurring in the psyche, as well as constituting a personality. This explains why the phenomenon cannot be considered a personal integral characteristic. The stability of the psyche is the resistance to the correction of certain parameters of the external space [9].

A.V. Miroshin defines emotional stability as a personal integrative feature, through which a person’s activity becomes highly effective, regardless of the impact of negative emotional factors. This is possible since the body activates reserves to achieve the goal. The authors recognize the special importance of regulating behavioral reactions through will, self-regulation to maintain emotional stability in conditions of significant negative loads [10].

Some authors study psychological stability as the persistence of behavior and the specifics of its regulation. This is the subject of separate works by L.S. Vygotsky, L.I. Bozhovich, S.L. Rubinstein, A.N. Leontiev, B.F. Lomov. In these works, the problem of the stability of the interaction between an individual and his environment are studied in detail, on the basis of the information received, it is concluded that stability is the balance of the formed system, maintained through the struggle against destabilizing external, internal conditions.

It is generally accepted that a high degree of self-regulation of behavioral reactions is manifested by subtlety, differentiation, adequacy, awareness of reactions (behavioral, verbal ones). The most complex variants of self-regulation of behavioral reactions appear at the final stage of the emergence of a mature personality, which is characterized by a highly developed self-consciousness [11]. Specific features of self-regulation of behavioral reactions are due to volitional mechanisms that allow one to consciously control activities and actions. Self-regulation of behavioral reactions by function can be represented as a process with two levels:

– the first level is the control of behavioral reactions at all steps of deployment, from the formulation of motivation for activity to obtaining a specific result and analysis of achievements;

– the second level is independent control, continuous analysis, assessment by a person of both the process and results of the regulation of behavioral reactions, motivation, goals, actions as it develops.

Such a process allows correcting actions [12].

As a person gets older, the influence of self-esteem becomes more significant than the assessment from the outside. Moreover, self-esteem is mobile. It is influenced by the results of the analysis of activities, the study of earlier decisions and actions taken, as well as the attitudes of other people. There may be other factors forming self-esteem [13].

M. Tyshkova formulates the key reasons for the formation of unstable, stable behavior. If a person is psychologically stable, his behavioral reactions can be described in general terms by the scheme: task – motivation – act – problem definition – negative emotional reaction – search for a method for solving the problem – reduction of the degree of influence of negative emotions – optimization of the degree of arousal, increase in the efficiency of functioning.

A person with unstable psyche is guided by a different scheme: task – motivation – act – problem definition – negative emotional reaction – chaotic attempts to find a solution – aggravation of understanding the problem – increased negative emotions due to the situation – deterioration in the ability to cope with one’s functions – decreased motivation, protective reaction [14].
If the psyche is unstable, a person may be in a position where the negative state is self-induced. This exacerbates instability and hinders the solution of the tasks assigned to the person.

One of the most significant factors among the whole complex that determines the mental stability of a person is the degree of optimism (pessimism). It affects how an individual assesses his successes and negative outcomes. Based on the information presented in the works by M. Seligman, Yu.M. Desyatnikova 3 parameters describing the assessment were offered:

- understanding the transient nature, constancy of failure, success;
- an idea of how situational or comprehensive situations are;
- attribution of failures, successes to oneself or others.

If a person is focused on pessimism, he perceives failure as a typical phenomenon, not related to a specific moment, but permanent. Such an attitude gives the feeling that failure is characteristic not only of a certain situation that has developed at the moment, but is regularly repeated, becomes a general rule, which is determined by personal characteristics. Such a person perceives success as random situations, which are due to the influence of short-acting factors that determined the development of a particular situation. The person considers success not as a consequence of his own unique qualities, but sees its cause in external factors. An optimistic approach is the key to mental stability. It is characterized by opposite ideas and sensations [15].

V.V. Arshavsky, V.S. Rotenberg proposed a theoretical basis for search activity, which represents, as something essentially significant, not a pessimistic, optimistic personal attitude, but the degree of individual search activity due to existing attitudes. This activity is aimed at correcting the current state, rethinking the current situation, taking into account the results of each stage of activity. An alternative option is a refusal to look for, analyze the situation, activity associated with panic, chaos, the use of established stereotypes. The degree of search activity is most important in a deadlock situation, when a sequence of actions according to a predetermined plan is either impossible or has no effect [16]. Personal psychological stability, the ability of a person to continuously transform search activity into reality are the factors that show the adaptability of an individual to various, diverse life situations, conditions of activity. An objective, stable self-image is the basis for the subsequent correct correlation of one’s capabilities and conditions of the situation, as well as the motivation of other people.

Psychological stability is the stability of the personality and personality components. A.N. Leontiev singled out the personality structure and described it as a stable combination of specific personal partners, motivational lines – the main and subordinate ones. He proposed key personal parameters: the breadth of an individual’s connections with the world around him, the degree of their division by hierarchy, the structure as a whole [17].

Moreover, a subjective variant of existence, the ability to create, the communicative function of a person is what forms situations accompanied by various kinds of uncertainty. Protective objects in this aspect are motivational, value systems and systems of meanings, cognitive formations, creativity, personal characteristics of behavior [18].

Psychological stability is a phenomenon that refers to the personality as such. This is a holistic, basic personality trait, an individual characteristic. L.V. Kulikov formulates the essence of the phenomenon as a personality trait, which aspects are as follows:

- resilience;
- ability to resist;
- proportionality.

Achieving the stability of the psyche is possible with the complex flow of adaptation processes, the inclusion of an individual in a situation, the coordination of the main functionality, as well as the stable performance of certain functions.
L.V. Kulikov studies the stability of the psyche within the framework of adaptation processes, studying the external and internal aspects of a process: extra-activity and the ability to adapt to the environment. The author assumes that too much emphasis on one aspect leads to a decrease in the stability of the psyche. The combination of extra-activity and adaptability forms a balanced situation, maintains psychological stability so that it preserves for a long time. Adaptation, stability of the psyche are phenomena that determine each other. It is impossible to adapt to the situation if a person’s psyche is unstable; resilience is maintained through flexible personal adaptability to variable external factors. Refusal of actions focused on society and objects among which a person exists reduces autonomy, weakens the stability of an individual’s psyche [19].

As for the emotional sphere, the following come to the fore when creating psychological stability:
- high self-esteem corresponding to reality;
- a sense of one’s own success, progress towards taking advantage of one’s talents and capabilities;
- experiencing a sense of cohesion, unity;
- fullness of emotions received in the process of interpersonal communication.

These factors affect the stability of the psyche as a whole, help to form a positive emotional background. In turn, it is an important condition that provides the psyche with the opportunity to fully function in a favorable situation. Researchers note that the most important thing is not the strength of positive emotions, but the duration and stability of such experiences [20].

A positive factor in the formation and maintenance of the stability of the human psyche is a person’s orientation towards independent development and knowledge, i.e. the willingness to increase personal psychological competence, improve on his own, study and master the ways of self-regulation. A rather high degree of mental stability formation is manifested in adequate behavior, awareness of one’s reactions, differentiation of behavior and its manifestations, as well as verbal manifestations and individual actions. The most complex options for self-regulation, the ways to maintain a stable psyche are carried out as part of the final step of the emergence, the formation of a mature personality who is fully aware of himself [21].

The activity of behavior, intense activity are the key internal factors influencing self-fulfillment tendencies, as well as the stability of the personality psyche. All spheres of a person’s activity are significant for maintaining psychological resilience: cognition, activity, communication. It is necessary to implement each as a mindset that involves forming a certain attitude to what is happening, interpreting events according to some scheme, as well as the way of individual reaction to the situation [22].

When creating personal psychological stability, the balance of the subject’s activity and the ability of an individual to adapt to the situation comes to the fore. Excessive focus on one side of the issue, the inability to implement any component are the factors that weaken the stability of the psyche. If a person cannot or does not want to implement an activity focused on objects or society, a paradoxical situation is formed – the person’s dependence on them grows. At the same time, adaptability to variable external factors means flexibility, the ability to analyze the situation, to choose the optimal behavioral strategy. This is necessary to maintain the stability of the psyche. To illustrate the conclusions, the authors will use the results of the study of future teachers’ psychological resilience [23].

2 Materials and methods

In the course of the research work, a complex was created for assessing resilience, including:
In the course of the research work, a complex was created by S. Maddy, adjusted to modern national conditions by D.A. Leontiev, E.I. Rasskazova;

- D. McLane’s method, the application of which gives an idea of the ability to endure uncertainty;
- A.V. Lazukin’s method of revealing self-actualization of an individual, revised and adjusted to modern requirements by N.F. Kalinin;
- measure of reflexivity according to A.V. Karpov’s theory;
- manifestation of self-esteem, proposed by S.A. Budassi;
- analysis of the degree of well-being of an individual in the context of the state of his psyche, developed by K. Riff, in a version revised by T.D. Shevelepov, P.P. Fesepko;
- manifestations of coping strategies according to the diagnostic methodology of R. Lazarus;
- Ch.D. Spielberger’s indicators of anxiety, the application of which in research practice is carried out in the version proposed by Yu.L. Khanin;
- assessment of well-being of an individual in accordance with the postulates of the methodology developed by G. Perue-Badu, revised and adjusted taking into account domestic conditions by M.V. Sokolova.

Sixty-eight (68) 4th-5th-year students were involved in the experimental work.

### 3 Results

The data obtained in the process of assessing the degree of hardness according to S. Maddy’s technology, adapted by D.A. Leontiev, E.I. Rasskazova, allow describing 8% of the respondents as people with a low degree of psychological stability. This suggests that their beliefs, worldview and self-image do not always allow them to effectively cope with stressful situations. The average level is set in 79% of the research subjects, while in 3% of the respondents the level exceeds the average. It was found that 36% of the students do not concentrate on the current time moment, instead the focus is shifted to the past or future. For this assessment, a scale of temporal orientation was used, presented in the framework of the methods for diagnosing personal self-actualization, developed by A.V. Lazukin, adapted by N.F. Kalin. These students are distinguished by an overestimated desire to achieve more, but they are not confident in their abilities, suspicious. A correlation was established between psychological stability and scale indicators \((r = 0.4007, p \leq 0.001)\). The study revealed that 41% of the students surveyed are characterized by a weak, average need to learn new things. As part of the study, the need for cognition was assessed according to the appropriate scale proposed by the method of diagnosing personal self-actualization. The indicator is a key one, as it demonstrates the motivation for change, the ability to go beyond the acquired idea of the surrounding space and oneself.

A personality capable of self-actualization is a person with an increased need for cognition. He is open to unusual impressions, fulfills its possibilities of existential cognition, is interested in objects that are not directly related to the satisfaction of a specific need. A. Maslow says that the knowledge of such a person is more accurate, effective, since he does not seek to distort perception based on personal desires and inclinations. This is a person who is the most objective, impartially aware of the reality, the events taking place in the world.

An important parameter of a person capable of self-actualization is a creative way of solving the task set by the situation. 38% of the research subjects showed a low degree of creativity. Such people hardly manage to introduce something new into their everyday life, to diversify it with creative elements. A connection was established between self-understanding and mental stability \((r = 0.341255468, p \leq 0.01)\). It proves that awareness,
acceptance of specific traits inherent in oneself is the foundation of mental stability, helps a person cope with stress, choose suitable goals, find his own methods to achieve them.

Psychological resilience is associated with the degree of psychological well-being ($r = 0.367208$, $p \leq 0.001$). This state is characterized by the dominance of positive emotions over negative ones. Subjective well-being is sometimes associated with the fact that joyful events mostly occur in a person’s life, his everyday life is filled with positive emotions. Another explanation is the person’s ability to perceive the situation optimistically, subjectively feeling the ability to control the events taking place in life. Psychological well-being is possible when a person feels sufficient internal resources to deal with problem situations. Anxiety, disadvantage in terms of the psyche are manifestations of a person’s insecurity in his ability to deal with difficult situations that accompany attempts to fulfill himself, to achieve chosen life goals. 43.5% of the respondents showed increased anxiety, which confirms the conclusions already drawn. In communication with a psychologist, students reported that they were worried about anxiety, since there is not enough certainty in self-fulfillment both in personal areas and in the profession in the future. Moreover, the students are convinced that they have a sufficient time lag, so they will be able to reveal their potentials, realize and seize opportunities.

Rigidity of thinking, inability to qualitatively focus on tasks characteristic of the current moment, weak creativity, a feeling of inability to stimulate, take control of events in one’s everyday life are factors due to which mental stability decreases, a person loses a sense of psychological well-being. Flexibility, the ability to discover new approaches to a problem, to apply atypical solutions in unfamiliar circumstances, the need to learn are factors of psychological well-being. They make it easier to cope with the feeling of anxiety due to the lack of certainty of the future. They give students self-confidence, increase the resilience of the psyche.

In order to determine, evaluate and analyze the results, to identify hidden dependencies, a factor analysis of the information received was carried out using the centroid methodology. Based on the results of the factor analysis, two key factors were identified. They are the basis for creating psychological personal stability. The factors collectively represent 62.7% of the resulting variance.

The first factor combines the following parameters:
- orientation in time – the ability to concentrate on the current situation, experiencing the past, anxiety about the future ($0.956948$);
- the need to learn new things, openness to the new ($0.941191$);
- the desire to implement creativity, the ability to solve problem situations in an unconventional way ($0.946971$);
- flexible social interaction ($0.932992$);
- formed reflection skills ($0.888464$);
- management of the environment, associated with a person’s feeling of the ability to control, manage events occurring in life ($0.793577$);
- motivation for development, personal growth ($0.795666$);
- adaptation to anxiety ($0.895723$);
- state of well-being of the psyche, assessed according to K. Riff's integral scale, adapted to domestic conditions by T.D. Shevelepkov, P.P. Fesepko ($0.902225$).

The listed parameters are combined into the factor “man – open system”. They describe a person's ability to learn from experience from a developing situation, to evaluate life events as a way to learn more about reality and one's place in it.

The second factor summarizes the following parameters:
- a positive opinion about human nature, associated with faith in humanity, in people's wide possibilities (the basis for the formation of strong interpersonal relationships ($0.930563$);
- self-understanding (0.914019);
- sympathy for oneself (0.918065);
- high self-esteem corresponding to reality (0.903169);
- subjective well-being, assessed by M.V. Sokolova’s method (0.770061).

These indicators can be represented as a factor of “self-acceptance”. It shows how strongly self-sympathy affects the stability of the psyche, to what extent it depends on the person’s ability to accept himself. In the interaction with the interviewer, the students indicated that the acceptance of qualities (both positive and negative ones) has a positive effect on the emotional background, makes a person effective in solving a difficult situation, helps to take an optimistic point of view of a problem situation, accept failure. A positive self-attitude, self-acceptance is not an uncritical perception, but is a clearly conscious, positive self-concept – the basis of the stability of the human psyche.

Conventionally, students can be divided into three groups according to the degree of psychological stability: low, medium, high student groups. When dividing, the integral factor was taken into account and S. Maddy’s hardiness test adapted by D.A. Leontiev, E.I. Rasskazova was used. A low degree of resilience was found in 33.3% of the group, the average level was found in 60.2% of the students, the highest level is characteristic of 6.5%. The features of the psyche of students who showed a high degree of psychological stability can be used as a standard to conduct further research and practical work aimed at increasing the stability of the psyche of students who showed a lower level of quality formation.

Students with a high degree of mental stability are described by the following parameters:
- clearly defined goals for the future (r = 0.64223, p ≤ 0.001);
- ability to focus on a task typical of the current situation (r = 0.410403, p ≤ 0.001);
- interest in more information about one’s personality and the world around (r = 0.441580339, p ≤ 0.001);
- focus on the subject, the ability to autonomously make a decision (r = 0.35993736, p ≤ 0.01);
- stable, even perception of uncertain environmental conditions (r = 0.396123714, p ≤ 0.001);
- internal control locus (r = 0, 0.46474609, p ≤ 0.001);
- self-acceptance (r = 0.57812876, p ≤ 0.001);
- self-sympathy (r = 0.37116734 p ≤ 0.001);
- self-esteem corresponding to reality (r = 0.348398, p ≤ 0.01);
- positive starting attitudes for interaction with others (r = 0.440186797, p ≤ 0.001);
- flexibility of social contacts (r = 0.4423753, p ≤ 0.001);
- healthy state characteristic of the psyche (r = 0.441913, p ≤ 0.001);
- relatively low (taking into account the indicators of other groups) level of anxiety (r = -0.390207152, p ≤ 0.001).

The main part of the control, experimental group was formed by students with an average degree of mental stability. 40% of the respondents do not feel their ability to fulfill themselves, 23% of respondents, faced with the need to make an important decision, depend on the opinions of other people, 25% reported that they do not have clearly defined goals that would be filled with meaning for their particular personality.

Among the key problems identified among students with a low degree of psychological stability, it is worth noting as follows:
- inability to focus on tasks conditioned by the current moment (r = 0.545875, p ≤ 0.01);
– the tendency to apply standard strategies, finding themselves in a difficult situation, without taking into account the fact that these methods are non-adaptive, do not meet the requirements that are determined by the regulation;
– low interest, weak motivation for learning (48% of the respondents, \( r = 0.430230239, p \leq 0.01 \));
– external locus of control (\( r = 0.360654631, p \leq 0.01 \));
– no sense of orientation of the life path (38.5% of the group);
– low degree of self-acceptance (73%).

4 Discussion

When taking into account the information revealed in the course of the research work, students are divided into three categories. A distinctive feature used in the division into groups is the resilience of the psyche. Those surveyed with high scores demonstrate good results on all scales of complex analysis “man – open system”, “self-acceptance”. Their specifics were chosen as guidelines for the elaboration, enhancement, strengthening of the psychological resilience of university students.

Students with average results in the analysis of the degree of resilience formed the most numerous part of the control, experimental sample. Such students do not feel self-fulfillment, they often feel bored, do not have an interest in life, depend on the opinions of other people in situations where they need to make an important decision. They do not feel that their life has a direction, they do not realize, neither define nor formulate personal goals that would be filled with a special idea for them.

The central problem, which manifested in the study of the identified indicators of individuals with insignificant mental stability: the inability to throw strength, energy on the current task (instead, a person worries about what has already happened and what has not yet come), the lack of ideological significance in a particular personal motivational system of goals, the irrational, unjustified desire for outstanding success, accompanied by self-mistrust, a standard set of stable coping strategies that do not adapt to the situation and do not meet its requirements, little interest in new knowledge, think by means of stereotypes assimilated by attitudes in the analysis, study of the surrounding world, external control locus, inability to trust people, the world.

5 Conclusion

The analysis of results of the research on students’ psychological stability at a university allows formulating the key problems. The identified factors make it possible to identify the goals of working with students whose results are low or average according to the research results. The necessity of the formation of psychological practice focused on the subject, implemented with the involvement of teachers, academic advisers and students, is proved. An analysis of the indicated problem of mental stability proves that the phenomenon has natural connections not only with the structures of human personality, but also with the specifics of the environment in which a person develops and acts, therefore, a disconnected study without taking into account these factors is unacceptable.

The world of an individual, the self-concept is an important object that requires protection from internal, external aggressive factors. Resilience of the psyche is a tool that allows guaranteeing the safety of personal integrity, motivation, goals, qualities that allow an individual to manifest in society, transform ideas into reality, achieve the desired progress. The need is prioritized; one of the main reasons provoking an individual
determines the unattainable goal – weak mental stability, lack of skills and abilities to cope with difficulties in the implementation of the plan.

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Human capital of the Quadruple Helix in the transformation of educational space

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Abstract. The article proposes a method for defining human capital as a key driving force of positive structural changes in a rapidly changing innovative educational space. The study revealed the influence of the process of the Quadruple Helix elements on human capital, with these elements represented by the knowledge, skills and abilities of a teacher in the educational process. The factors and parameters that characterize and affect the development of human capital in the context of innovative educational content have been determined. The study discusses innovativeness of human capital development in the context of the quaternary concept. The statistical tools for assessing the extent of the spread of human capital in the Russian economy were analysed. The study showed the relationship between the development of human capital and the transformation of the educational space and the economy. The conclusion was made on an effective structural policy in determining the human development in the context of the development of an innovative educational environment.

Keywords: human capital, transformation, educational space, innovation

1 Introduction

Modern trends in the innovative educational space strive for constant development. Since the demand for innovative processes is steadily increasing, the quality of human capital changes. In this regard, it is the importance of the teacher underlying in the combination of and demand for knowledge, skills and abilities they possess. This change is facilitated by the creation of innovations, manifested in acceleration of significant technologies and advanced opportunities in educational activities of the teacher. The acceleration of innovative educational spaces is interconnected with the realization of the cognitive human capital and the generation of new structure-forming properties that have an impact both on the educational process and the country’s economic dynamics. There is an increase in the
merging of human capital and convergent technologies, which in turn leads to the emergence of new structural shifts not only in relation to the educational process of the teacher, but also between the elements of the economic system. The structure and genesis are fundamentally transformed.

The provision of progressive transformational changes in the innovative educational space is impossible without an inevitably increasing human potential, which creates the main driving force for the structural development of the country’s economy. In this regard, there is a great need to study the formation and development of new innovative business models that will contribute to the human capital development, its ongoing reproductive mechanisms as a source of innovative educational space. This study will consider the Quadruple Helix, human capital from the point of defining the knowledge, skills and competencies of a teacher, provide a statistical analysis of this phenomenon, and present conclusions based on the results.

2 Materials and methods

In this study, various scientific methods were used, including abstraction, quantitative and statistical analysis, practice-based analogy, and heuristic analogy.

The aim of this study is to determine and describe new forms of organization of the innovative educational process, to substantiate the effect of these forms on the reproductive processes of human capital, which trigger the mechanism of positive structural changes in the domestic economic and educational dynamics.

The abovementioned aim allowed to set forward the following objectives:
- to research the Triple and Quadruple Helix models of innovative educational development;
- to distinguish between the two helix models;
- to reveal the conditions for the implementation of these helixes in Russian education;
- to identify the effect the quaternary helix has on human capital, its reproductive mechanisms and the structure of Russian economy and education as a whole.

The concept of the Quadruple Helix was described by E.G. Carayannis and D. Campbell in 2009. The innovation is affected by various public institutes, which through theory made it possible to embed this idea in the addition of a fourth element to the Triple Helix. In this case, the Quadruple Helix is the civil society, which is affected by culture, mass media, art, values, lifestyle, and creative industries, and perhaps by the “creative class” and educational environment [1].

Expanding and strengthening public relations in an innovative educational space based on mutual trust is an integral component of innovative development. The Triple Helix which is associated with the interaction of universities, innovation clusters and state/government, which is the tip of the iceberg of the most complex system of interaction and interdependence between the innovation and the development of the creative potential of the human capital in general. This system embraces education, economy, social and cultural life and the interaction between the state and civil society [2]. The Quadruple Helix describe this system consisting of education, society, state/government, science, business and relations between them. The aim of this concept is to engage the society and teachers in the innovative educational process from the point of view of the entity of its components.

The studies of H. Etzkowitz [3] and Loet Leydesdorff [4] determined the scientific nature of the issues and research of the organizational forms of innovation in the educational environment of the innovative theory. These authors considered the evolution of new institutional forms, also regarding the organization of the entire educational process. Business, universities and government structures combine not only the traditional component, but also adopt some functions of other institutional structures. Considering new
models of innovative transformations, a special role is assigned to hybridization of interactions between the main economic structures, focusing on the crucial role of human resources in the positive shifts and beneficial structural changes, including those characteristic of the development of an innovative educational space.

Researchers such as E. Grigoroudis and E.G. Carayannis [5] study the strategies of smart specialization and its principles. The mechanism of the innovation development interconnected with the development of human resources in ensuring positive structural transformations of the economy is identified with the heterogeneous dynamics based on knowledge, technology and resources.

V.S. Khamidulin [6] defines the Triple Helix model in the context of regional economy by identifying the main role of the state/government in innovation, with other institutes being secondary in this regard.

All the cited authors study new models of the innovation development with insufficient consideration of the role of human capital from the point of view of innovative educational process, as a driving force of positive structural changes in the economic system.

3 Results

Consideration of government, business, science and society in the framework of the economy and educational systems of the country led to the fact that successful functioning of academic standards depends on the interaction with these four elements. Each of them has got their own inner forces for development, but the balance between these forces is crucial for successful social and economic development of the country. If one of these elements dominates over the other ones, then a deformed type of social and educational structure arises, which cannot be effective.

As part of innovation, it is necessary that the interaction between state/government, business, educational environment and society is balanced. The imbalance of these interactions leads to inefficiency of the innovative educational process [7].

The same can be inferred about innovation in terms of the Quadruple Helix model. The economy and education will be most effective if all these subjects interact.

The involvement of teachers in modernization and the desire for change are crucial. Yu. Krasin noted: “Modernization requires a significant rise in creativity, mass inclusion in this process of the elite technocrats and politicians and the majority of the population, who perceive the urgent tasks as their own business, a common interest of all Russian citizens” [8].

Within the framework of the Quadruple Helix model, the key parameter for the creation of knowledge and innovation is the knowledge society and knowledge democracy. According to the Quadruple Helix, sustainable development of economies requires co-evolution with the knowledge society [9].

R.R. Kasenov considers the Quadruple Helix as a model of the NIS. Currently, the NIS model is determined largely by the level of science and education, the economic development, institutional, political, climatic and geographic characteristics of the state. The development of the NIS model is not a long-term process, which can last for 25 years on average. Government, business, science and civil society interact in the process of NIS formation. Each element performs its own functions and also adopts new ones. Countries become leaders if they apply a high academic and scientific potential while quickly introducing innovation into production. The solution of this task is assisted by well-established interaction of business and science, active protectionist state policy and active civil society [1].
The authors of this study suggest considering the interaction of society, business, educational systems, science and government at 4 levels: Individual level, City level, Regional level, Macro level.

At the individual level, society is represented by individuals, teachers, and individual institutions and organizations will act as representatives of science, business and government. The interaction of society and business at this level is carried out using the following tools: focus groups, observation, empathic design, crowdsourcing platforms in an innovative educational environment.

At the city level, society is represented not only by individuals, but also the mass media and non-profit and public organizations. At the same time, the influence of individuals is still significant at the city level. The interaction with other participants in the innovation takes place within the Smart city concept and crowdsourcing. Science is represented by universities, scientific associations, research institutes, etc. Polls and crowdsourcing platforms are used in the interaction between science and society at the city level.

At the regional level, society is represented by individuals, non-profit and public organizations, and mass media. At this level, the interaction of society with other participants in the innovation takes place within the Smart city concept and crowdsourcing. At the same time, non-profit and public organizations and mass media are at the forefront at the regional level. The interaction of society, science and educational systems at the regional level differs from that at the city level, as science is represented by groups of research institutes rather than by separate institutes. The tools used for this interaction are the same at both levels.

At the macro level, the interaction between society, business, science and government takes place within the framework of crowdsourcing and the Smart city concept. The interaction tools used are similar to those at the regional level. However, there are some differences between the regional and macro levels. First, an individual cannot exert a strong influence on the innovation, but if individuals are united in professional communities, then their influence can be great.

4 Discussion

According to the study conducted by the Higher School of Economics, as of 2020, Sweden, Switzerland and the United States have become leaders in innovative development. Russia ranked 47th in the Global Innovation Index 2020 [10]. There are insufficiently developed areas which adversely affect the innovation development, including the institution pillar (74th), creative output pillar (60th), infrastructure pillar (60th), and business sophistication (42nd).

Russian science has its own understanding of the Triple Helix and the Quadruple Helix. Unlike other countries, science in Russia is represented not only by universities. The research institutes of the Russian Academy of Sciences conduct various studies, while the “higher education” sector account for only 7% of the expenses on research and development (R&D). According to statistics, only 45.4% of universities are engaged in scientific research, with only 18.7% of the academic staff involved [11]. As of 2019, the number of R&D staff was 682,464. Internal R&D expenditures amounted to 1,134,786.7 million rubles, of which 195,163.8 million rubles were spent on the general development of science compared to 2018, when funding amounted to 169,868.5 million rubles [12]. The staff potential of Russian science is substantially decreasing.

As for the statistical data on the human capital development in Russia and the United States, the following data can be given (see Table) [13].

Table 1. Human capital development.
Based on the table, we can conclude that the indicators for the human capital development are higher in developed countries (for example, the United States) than in Russia. The above data suggest that human capital is crucial in the development of positive structural transformations, which, as a result, contribute to the evolutionary economic system as a whole.

According to the study of O.S. Sukharev [14], structural dynamics and structural analysis imply that economic growth is not possible without the necessary structural changes and competently implemented structural policy. Innovation cannot be effectively implemented without the constant reproduction of human capital and the educational process.

<table>
<thead>
<tr>
<th></th>
<th>Russia (as of January 1, 2021)</th>
<th>Developed countries (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The minimum wage</td>
<td>12,792 rubles.</td>
<td>$7.25 per hour</td>
</tr>
<tr>
<td>The subsistence</td>
<td>11,653 rubles.</td>
<td>$2,380 per month</td>
</tr>
<tr>
<td>The share of</td>
<td>47.8%</td>
<td>74%</td>
</tr>
<tr>
<td>Salaries of</td>
<td>–</td>
<td>$4,520 per month</td>
</tr>
<tr>
<td>highly qualified</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>specialists</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by the authors.

5 Conclusion

Based on the conducted study, we can conclude that the innovative educational process is mainly affected by four elements: the interaction of business, science, government and society. In order to achieve progress in innovations in the Russian Federation in particular, it is necessary that the interaction between state/government, educational environment, business and society is well-balanced.

This study was devoted to the innovation in two modern forms, the Triple and Quadruple Helix. The Triple Helix model includes three institutes: science, state/government and business, which can co-evolve in complementary conditions. The Quadruple Helix consists of the three above-mentioned elements and the public, as the theory is that a citizen interacts with all three institutions, somehow changing and supplementing them. The most important condition of the helix theory is the balance between all the aspects mentioned, otherwise the economy will be disrupted.

Based on the study, we can conclude that the helix phenomenon is of practical significance, since both the Triple and Quadruple Helix models can greatly affect the development of the educational environment in the Russian Federation. These models will make it possible to demonstrate all the advantages of Russia that are right now in stagnation. There is a need to revise public policy in terms of maintaining and supporting the initiatives for positive structural transformations and, as a result, the human capital development.

The development of a scientific base, investment and public interest will stimulate the increase in the quantity and quality of human capital in this area, and another industry can develop after a new discovery. For example, labor productivity will increase due to the implementation of some innovative method or technology, leading to an increase in human capital.

Since human capital in Russia is mainly in mining, service business and the military-industrial complex and does not develop, with the emergence of a new area it will be redistributed. There should be an inflow of human capital into the scientific and innovative sphere, and the “brain drain” will decrease. These changes should have a positive effect on all spheres of the economy, educational content and society in Russia, as development entails even greater development, GDP and income growth, HDI growth, human capital.
will increase and develop, which will be beneficial for the formation of positive structural shifts.

Russia needs such development because the experience of other countries shows that the helix can boost the economy and innovations, provide people with space for self-realization and improvement of our life.

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Pedagogical conditions for creating the needs of state university students for systematic physical education and health promotion

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Abstract. The socio-economic changes taking place recently in our country indicate the significant importance of means of physical culture and sports in preparing the future specialist for professional activity. It has been proved that only a physically healthy and trained person is able to solve the most serious problems in everyday life, thereby ensuring the sustainable development of Russian society in the cultural and social aspects. Physical education in a higher educational institution is a compulsory discipline that meets the motor needs of students. Physical education classes at a state university should provide a wellness effect and axial motor activity of students. Studies in recent years show a decrease in interest in systematic physical education of students in various higher education institutions, which negatively affects the physical and mental health of young people. The article presents the results of research revealing the priority motives and needs of students of the state university when choosing means of motor activity for systematic physical education and sports in order to strengthen physical and mental health. The data presented serve as the basis for the development of effective pedagogical approaches to the creation of needs among students of a state university for systematic physical education and health promotion.

Keywords: students, physical education, health, needs, quality of life

1 Introduction

The key condition for the development of Russian society is considered to be the life quality of various categories of the population, including young people [1-5]. An analysis of the opinion of experts [6] shows that in domestic science two independent vectors of consideration of the life quality are considered. The first is a descriptive approach that considers the quality of life in the style of sociology, without taking into account the subjective assessments and self-esteem of the individual, his satisfaction and dissatisfaction with the quality of his life. The second is an evaluative approach, in which the quality of
life is assessed taking into account some specific characteristics of the respondents – income level, living conditions, social status. This approach allows people to be classified according to certain criteria. Student youth is no exception, which, according to objective and subjective assessments of the life quality does not coincide with each other, or, at least, this connection is very weak [7-9].

In accordance with the above position, it should be noted that the life strategies of a student’s personality are greatly influenced by the socio-economic situation of a person. The lower the standard of living of the population, the less obvious life prospects, the more important material values become, and the values of development, including physical, mental, personal and professional, are relegated to the background [10-14].

Life strategies of students affect the development of society, if they do not determine such development: the more students develop active motor activity, the more creatively it will be directed, the more progressively this society will develop, which in turn will lead to an improvement in the socio-economic situation of the country [15-19].

The life prospects of the student’s personality, their specific features, and the main vectors are determined not only by his professional, family and age characteristics, depend on the person, on its socio-psychological and social maturity and motor activity, but also correlate with the external environment of existence, depend on many socio-economic factors [20-24].

The strategy of life, taking into account its individuality and uniqueness, is determined by a steady interest and needs for systematic physical culture and sports during the school day and in the process of independent studies, which ensure the health improvement of modern Russian youth [25, 26].

The purpose is to study and substantiate the pedagogical conditions for the formation of the needs of students of a state university for systematic physical education and health promotion.

2 Materials and methods

The study was conducted in 2018-2021 on the basis of the Chechen State University (Grozny, Chechen Republic). The study involved 348 students of various specialties of full-time education. The age of the subjects ranged from 17 to 21 years. To study the needs of students for systematic physical culture and sports, as well as health promotion, a package of methods and techniques was used: pedagogical observations, sociological survey (questionnaire), expert assessment, etc. The study of students’ needs was carried out under different objective (health status, experience of engagement in sports) and subjective (formation of knowledge about a healthy lifestyle, internality in relation to health and illness, the type of the need formation for a healthy lifestyle) conditions of formation. The obtained results of the study made it possible to determine the pedagogical conditions for the effective formation of positive motives and needs among students of the state university for systematic physical education and health promotion.

3 Results and discussion

The data analysis in Figure 1 shows that for 58.4% of the surveyed students, their nutrition corresponds to a healthy lifestyle, and for 41.6% it does not.

The research has shown that for 33.7% of students their clothing meets all the requirements for a healthy lifestyle, and for 66.3% it does not. It was revealed that in order for physical culture classes at the university to have a health-improving orientation, only 16.3% of the surveyed students answered about the compliance with safety measures.
The research materials show that for 83.3 and 97% of students there is no positive attitude and interest in communicating in physical culture classes at the university in order to ensure a healthy lifestyle (Fig. 1).

![Fig. 1. Objective and subjective opinions of students about a healthy lifestyle.](image)

The data obtained indicate that the majority of students have no interest in systematic physical culture and sports at the university as the main means of maintaining a healthy lifestyle. In this regard, in order to understand a clearer picture of the motives and needs of students of the state university, additional sociological research was carried out – a questionnaire.

According to the results of the questioning, the subjects we received the following results:

97.35% of students consider: sports, physical education are important for health. 82.5% of young people like to go in for physical culture, sports. 98.34% – plan to engage in physical culture and sports in the future. The choice of a sport by young people is largely determined not by an independent choice, but by the sports preferences of parents (21.45%), friends (19.83%), brothers, sisters (11.55%), groupmates (11.55%) and classmates (8.25%). Many of the respondents began to engage in a certain kind of sport due to a good relationship with a coach (16.53%), or the recommendations of teachers (6.63%) (Fig. 2).

97.35% of students regularly attend sports trainings. 4.95% of students believe – it is necessary to go in for sports, physical education at least once a week, 50% of the subjects consider – at least 2 times a week, 13.86% – at least 3 days a week, 11.55%, – at least 4 times a week, 9.99% – at least 5 days a week, 9.99% – at least 6. The period of going in for sports: 100% of the subjects consider – for less than a year’s period; 0% of young people – from 1 to 2 years and from 2 to 5 years.

Sports and physical culture are of interest to young people primarily due to the fact that regular exercise improves their appearance, makes a person more physically attractive (49.5%), the presence of friends and team support is in the second place (23.1%) (Fig. 3).
Fig. 2. The choice of a sport by the young people depending on the preferences of the social environment, %.

Fig. 3. Reasons for the attractiveness of sports and physical culture for young people, %.

Young people do not like the need for constant training in sports, physical culture to achieve the desired result (19.8%), the risk of injury (49.5%), the lack of time to communicate with friends who are not involved in sports, and other things (23.1%). Sports, physical culture influenced the life of students in the following way: they improved their appearance and health (49.5%), helped to better plan their affairs (19.9%) and find new friends (19.8%). All subjects are playing volleyball. Additionally, except this kind of sports 23.1% of students are additionally involved in other sports (wrestling, basketball, etc.).

A healthy lifestyle for young people correlates with a number of criteria proposed by us in Figure 4. It has been established that regular physical activity is the main criteria for a healthy lifestyle for 28.05% of students at the state university. It was determined that for 19.80 and 23.10% of students, material well-being, financial stability and good sleep are the key to leading a healthy lifestyle. Students (13.50%), who are engaged in their chosen kind
of sport during extracurricular (sectional) time, note the need for timely medical examination.

![Diagram showing percentages of different factors related to health and lifestyle]

Fig. 4. Representations of young people about a healthy lifestyle, %.

Analysis of the results of the study made it possible to establish that for 25.41% of the surveyed respondents, financial difficulties are one of the reasons that prevent them from leading a healthy lifestyle. An increase in the training load leads to the fact that 20.79% of students lack time for a healthy lifestyle, and for 15.52% of students bad habits do not provide an opportunity to constantly engage in various types of physical activity.

They get sick very rarely – 13.33% of the subjects, up to 1-2 times a year – 46.35%, regularly once every six months – 33.33%, once a month – 6.66%, constantly, every week – 0, 33%. The emerging health problems do not always allow them to regularly play volleyball. The state of their health is currently assessed as poor – 0.33% of young people, as unsatisfactory – 2.66%, the average level of health – 26.66%, good health – 57.02%, excellent health in 13.33% of all students.

The state and attitude to health changed in a positive direction in 65.33% of young people after they began to engage in their chosen sport in out-of-lesson hours.

To analyze the answers to the 18th point of the questionnaire – “For you, a healthy lifestyle is ...”, the method of expert assessment was used. The leading teachers of the Department of Physical Education of the Chechen State University acted as experts. The collective expert assessment made it possible to substantiate the opinion of specialists regarding the pedagogical conditions of the needs formation of students of the state university in systematic physical education and health promotion. As a result of the study, students of the Chechen State University were identified as having: internal, external and diffuse types of needs for systematic physical exercise and a healthy lifestyle.

Internal type. This category of students is characterized by a stable formation of needs, focused on systematic physical education and sports during academic and extracurricular time at the university. Internal students are focused on leading a healthy lifestyle, and the result of this activity depends on them. Many students of this group systematically monitor their health and actively use the means of physical culture and sports to maintain it at a high level.
External type. This group of students adheres to a healthy lifestyle. The main motive for the students of CSU is compliance with fashion trends, which provide for systematic classes in a certain kind of sport, taking into account the opinions of others.

Diffuse type. This category of student youth is characterized by the lack of formation of positive motives and needs aimed at maintaining a healthy lifestyle with the help of physical culture and sports. In the decision-making process, the student is not guided by the long-term perspective, regarding his health, but is guided by the actions that happen to him “here and now”.

![Fig. 5. Types of formation of the need for a healthy lifestyle among young people, %.

As a result of the analysis of the formation of needs for physical activity and a healthy lifestyle, CSU students were divided into three types as follows: diffuse type – 23.66%, externally conditioned type – 65.33%, internally conditioned type – 11.01%. These data indicate that the majority of young people do not have an internal need for a healthy lifestyle (Fig. 5).

4 Conclusion

Thus, the results obtained indicate that health is not the leading terminal value of modern youth engaged in physical culture and sports at a university. In this regard, in order to increase interest in physical culture and sports, it is necessary to create pedagogical conditions at educational and extracurricular activities of the university that provide a student the right to choose regarding the form of training, the type of sport, as well as the mode of motor activity. The results obtained in the course of the study can be useful for effective programming of physical education classes in state universities of the Russian Federation.

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Analysis of the conditions for using the resource potential of the municipal physical education system to promote healthy lifestyles among the population

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Abstract. Purpose of the study is to analyze the conditions for the use of the resource potential of the municipal physical culture system for the formation of a healthy lifestyle of the population. Research objectives: to analyze the totality of organizational and pedagogical conditions for the use of the resource potential of the municipal physical culture system to form a healthy lifestyle of the population, determine the resource potential of the municipal physical culture system in forming a healthy lifestyle of the population, determine the criteria of effectiveness of the municipal physical culture system in forming a healthy lifestyle of the population. The following methods were used for the study: analysis and synthesis of scientific literature data, sociological research, questioning, psychological testing, theoretical modeling, methods of mathematical statistics. The content and results of the sociological study as a target point for optimizing the management of the system of mass physical culture and sports activities in the region, using the example of the Chechen Republic, are outlined. Based on the results of the study and analysis of the data obtained, the conclusion is made that the optimization of management of the system of physical culture and sport activities and the emphasis on personal and municipal resources can significantly increase the attractiveness of mass sports and physical culture for citizens. The resource potential of the municipal physical culture system in the formation of a healthy lifestyle of the population was determined, which consists in the possibility of improving and effectively using municipal and personal resources to enhance the formation of a healthy lifestyle of citizens. The study also showed that the potential of the municipal physical culture system in the formation of a healthy lifestyle of the population is of great importance and has promising opportunities for the effective use of municipal and personal resources.

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Keywords: physical education, municipality, health, population, healthy lifestyle

1 Introduction

The well-being and the possibility of progressive development of society and the state depend largely on the good health, high capacity for work and physical, mental and social health of every person. These factors, in turn, are determined by a healthy lifestyle and optimal physical activity regime. The Concept of the Federal Target Program “Development of Physical Culture and Sports in the Russian Federation for 2006-2015” states that “An essential factor determining the health of the population is the maintenance of optimal physical activity throughout the life of each citizen” [1].

The current aims and mission of physical culture and sport in Russian society are reflected in the Federal Act “On physical culture and sport in the Russian Federation”, the Federal Target Programmed “Development of physical culture and sport in the Russian Federation for 2006-2015”, the Strategy for the development of physical culture and sport in the Russian Federation for the period to 2020, etc. The documents substantiate the goals, objectives, activities of physical culture and sports organizations, specialists related to the organization of physical culture and active leisure of the population [2, 3].

In the changed socio-economic conditions, the work on the use of resources of the municipal physical culture system for the formation of a healthy lifestyle of the population requires priority modernization. This aspect requires the creation of modern organizational and pedagogical conditions, corresponding to new mechanisms of financing, planning, stimulation and resource provision. It is on this basis that the tasks facing the modern physical culture system can be fully solved [4, 5].

However, we have not found sufficiently detailed scientific, scientific and methodological works that substantiate modern principles, methods, tools, etc. of effective use of municipal physical culture resources for the formation of healthy lifestyles of the population taking into account the needs and interests of citizens. Thus, there is a contradiction between the objective need to fully use the resource potential of the municipal physical culture system for the formation of healthy lifestyles and the lack of scientific knowledge about modern organizational and pedagogical conditions, the creation of which will ensure the effectiveness of this process [6, 7].

In view of the above, we have analyzed the conditions for using the resource potential of the municipal physical culture system to promote healthy lifestyles among the population.

2 Materials and methods

Purpose of the study: to analyse the conditions for using the resource potential of the municipal physical culture system to promote healthy lifestyles among the population.

Research objectives:
- to analyse the totality of organisational and pedagogical conditions for the use of the resource potential of the municipal physical culture system for the formation of a healthy lifestyle in the population;
- Identify the resource potential of the municipal physical education system in shaping a healthy lifestyle for the population;
- define criteria for the effectiveness of the municipal physical education system in promoting healthy lifestyles among the population.

The following methods were used to carry out the study:
- analysis and synthesis of the scientific literature,
- a sociological survey, a questionnaire survey,
- psychological testing,
- theoretical modelling,
- a pedagogical experiment,
- methods of mathematical statistics.

A questionnaire survey was conducted to obtain the following information:
- the role of physical education, sport, physical education and sporting activities in the lives of citizens;
- residents’ preferences for sports and recreational activities in terms of location, time and schedule, information system, etc.;
- typical strengths and weaknesses of the physical activity system in the region (case study of the Chechen Republic).

In order to empirically determine the content of the resource potential of the municipal physical culture system in the formation of a healthy lifestyle of the population, a diagnostic study was organized. The refinement of the composition of the resource potential of the municipal physical culture system for the formation of a healthy lifestyle was based on the following theoretical framework:
- knowledge of the indicators and factors of a healthy lifestyle
- indicators of the effectiveness of physical education and recreational activities;

On the basis of a theoretical analysis of scientific literature, state regulations, periodical press materials, including reports on public opinion surveys on issues relevant to the topic of our work, questionnaires were developed and used for diagnostic purposes, and appropriate psychological tests were selected. The survey consisted of two parts: the first part was aimed at identifying the role of sport, physical culture, physical culture and sporting events in the life of the population of Grozny, and the second part was to determine the degree of satisfaction of the citizens with the content of ongoing physical culture and sporting events (and all related aspects of the respondents’ opinions). Two main groups of respondents took part in the survey: pupils (senior schoolchildren, college and university students) and adult residents (both working and retired), 400 people in total. In analysing the results, where appropriate, the answers were also grouped according to the gender of the respondents.

A study was carried out to analyse public opinion in Grozny on physical education and sporting activities in the city as a whole, the degree of involvement of citizens in physical education and sporting life, and the importance of physical recreation in their lives.

3 Results

The processing and analysis of the results of our survey allowed us to draw the following conclusions. More than half (85%) of the respondents are convinced that the city has its own sports traditions, including those related to the conduct of physical culture and sports events. First of all, such traditions include competitions at various levels in football, wrestling, etc. In addition, the townspeople recalled that for 10-15 years, athletes’ performances have been a compulsory element of the City Day and Republic Day celebrations. Pupils also named the “Health Days” traditionally held in educational institutions.

Nevertheless, physical education and sporting activities are not among the favourite activities of citizens, either in terms of participation or spectacle (Table 1).

The exception in this sense was:
- broadcasts of the past Olympic and Paralympic Games, watched by 78% of those surveyed;
- students and staff of physical education and sport institutions of further, secondary vocational and higher education, who made up the main contingent of respondents who answered “very interesting” to the above question of the questionnaire.

It should also be noted that both spectator and active interest in physical education, sport and physical fitness activities is more common among young men, and the level of education does not play a role (Table 1).

**Table 1.** Distribution of answers to the question “How interested are you in sports, physical education and sports activities?” (Compiled by authors).

<table>
<thead>
<tr>
<th>Answer option</th>
<th>27%</th>
<th>21%</th>
<th>19%</th>
<th>22%</th>
<th>11%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More likely not to be interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More interesting than not interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.** Distribution of answers to the question “How interested are you in sports, physical education and sports activities?” (Compiled by authors).

<table>
<thead>
<tr>
<th>Socio-demographic group</th>
<th>Little interest</th>
<th>Interesting in some ways</th>
<th>Enough / very interesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>24%</td>
<td>24%</td>
<td>52%</td>
</tr>
<tr>
<td>Women</td>
<td>65%</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19 years old</td>
<td>33%</td>
<td>22%</td>
<td>45%</td>
</tr>
<tr>
<td>20-45 years old</td>
<td>42%</td>
<td>25%</td>
<td>33%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below general average</td>
<td>55%</td>
<td>18%</td>
<td>27%</td>
</tr>
<tr>
<td>Overall average</td>
<td>43%</td>
<td>24%</td>
<td>33%</td>
</tr>
<tr>
<td>Secondary or higher vocational qualification</td>
<td>42%</td>
<td>25%</td>
<td>33%</td>
</tr>
</tbody>
</table>

In addition, the interest indicated relates primarily to physical education and sport spectacles and does not extend to physical education and sport as an activity (Tables 3-4).

**Table 3.** Distribution of responses to the question “How often do you...?” (Compiled by authors).

<table>
<thead>
<tr>
<th>Answer option</th>
<th>Taking part in physical activity and sport</th>
<th>Attend sporting events as a spectator/fan</th>
<th>Attend physical education and sporting events as a participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Once a week</td>
<td>6%</td>
<td>15%</td>
<td>2%</td>
</tr>
<tr>
<td>1-3 times a month</td>
<td>8%</td>
<td>21%</td>
<td>16%</td>
</tr>
<tr>
<td>Less frequently</td>
<td>28%</td>
<td>31%</td>
<td>22%</td>
</tr>
<tr>
<td>Never</td>
<td>50%</td>
<td>30%</td>
<td>60%</td>
</tr>
<tr>
<td>Difficult to answer</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Thus, 22% of citizens who engage in physical activity at least once a month can be considered to be engaged in physical activity. At the same time, 8% of respondents who do physical activity at least 2-3 times a week are systematically engaged in physical activity.
In our opinion, 14% of the respondents, who practise physical activity at least once a week, should be considered regular active participants in physical culture and health activities.

Active participation in physical education and sport activities is characteristic of 40% of respondents. Of these, 18% are consistently active participants.

Obviously, 70% of the respondents can be identified as participants of sports events who attend them as a fan and not just watching them on TV. Regular passive participants of this type of activity could be considered to be 18% of the respondents who attend sports events at least once a week, but considering objective factors, we will consider the frequency of attendance at least once a month as an indicator of systematic passive participation – such respondents are 39%. These results can be considered significantly higher than similar data related to motor activity.

It should be noted that, when analysing the composition of respondents classified as regular active participants (18%) and regular passive participants (39%) in physical education and sport activities, we identified those who belonged to both categories at the same time. These respondents accounted for 25.7%.

**Table 4. Distribution of responses to the question “What sports are the competitions you...?”**

(Compiled by authors).

<table>
<thead>
<tr>
<th>Answer option</th>
<th>Visited within the last year</th>
<th>Watch the competition regularly on TV (on the internet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>8%</td>
<td>39%</td>
</tr>
<tr>
<td>Volleyball</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>Handball</td>
<td>11%</td>
<td>17%</td>
</tr>
<tr>
<td>Gymnastics</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Athletics / Weightlifting</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>Wrestling, Boxing, etc.</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>Car racing</td>
<td>0%</td>
<td>16%</td>
</tr>
<tr>
<td>Another option</td>
<td>62%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Apparently, the citizens have a predominantly mass-media interest in physical education and sport events. Only 6% of respondents regularly read Sport-Express newspaper, while 45% of respondents (among those who mentioned media as important sources of sports information) watch sports TV programmes with varying frequency. Only 4% of respondents are members of sports associations – all of them are professional athletes or coaches.

Local and regional competitions are in the lead (47%), followed by national (31%) and international competitions (17%). Among the most popular sports (as a spectacle) are football (33%), wrestling (30%) and handball (17%).

The mass media were named as the main source of information on physical education and sport by 23.4% of respondents. The majority of respondents in this aspect are guided by the opinion of friends, acquaintances and relatives (38.5%), followed by outdoor forms of advertising and propaganda (22.3%). The least effective in this context are the existing oral forms of propaganda (15.8%).

Overall, the results of the citizens’ physical activity are as follows:
- 50% do not exercise at all or not regularly in the morning;
- 17.5% do sports on their own, with friends;
- 32.7% go to health clubs, sports clubs, including at their place of study, work and/or residence;
- 14.6 per cent go on camping trips, go out into the countryside.

50% of the respondents who chose any of the forms of physical activity proposed in the questionnaire can be considered as active participants in physical education and sport activities. At the same time, 32.4% of the respondents who chose “regularly” in the
respective options are permanent participants, i.e. people who engage in physical education and sport on a regular basis, even if not all of them do it in organised forms.

Typical motives for engaging in physical education and sport are:
- the need to “improve the figure” (27.9%),
- the need for movement (27.5%), an increase in muscle tone (24.6%),
- an increase in physical fitness in general (22.5%),
- development of physical strength (19.2%, predominantly male),
- active recreation and socialising with friends (14.2% and 11.7% for children and young people respectively),
- recovery (12.9% – adults),
- achieve good sports results (7.1% – athletes).

Lack of time (51.6%) is a typical “hindrance” to regular physical exercise and sports activities. In second place is lack of desire (16.1%), followed by lack of sports equipment (12.6%) and sports facilities near the place of residence (11.2%). Also, 8.1% of those surveyed do not feel fit to take part in physical exercise and sports; 7.6% do not know how to start; 4.9% are not interested in doing anything; and 3.1% do not see any benefit in it.

According to the results of the assessment of urban sports facilities, the most popular sports facilities are swimming pools, which 60% of respondents visit with varying frequency; 43.3% of visitors are quite satisfied with their work. In second place in popularity are stadiums and sports grounds (41%), but most consumers are not satisfied with their work. A third of respondents visit physical education and recreation sections and clubs and are satisfied with their work.

4 Discussion

The problems of ensuring the effective functioning of the municipal physical education system in the direction of optimising the activities directly related to the organisation and delivery of physical education and sport activities are now being investigated in various scientific specialities [8].

The analysis of scientific and methodological literature has shown that, due to many years of Russian reforms, the active participation of the population in physical culture and sports activities and mass sports is one of the indicators of the viability of the nation, but this aspect has been underestimated by the state ideologically and financially, which has resulted in the loss of the once available physical culture and sports potential of the country [9].

For example, V.S. Kozlova, in her research, lists the key factors preventing the effective development of physical education and sport in the country, as well as the implementation of a number of conceptual provisions of state social policy, among others:
- insufficient involvement of the population in regular physical activity;
- ineffective and unsystematic work to promote and encourage healthy lifestyles, physical activity and regular exercise among the population [10].

According to R.G. Gosteva, many studies have highlighted the development of mass sports, primarily in educational institutions and at the place of residence of potential participants, as one of the main areas of modernisation of the sector, which required the following specific tasks to be set and solved:
- improving the system of facilities – both in various educational organisations and in areas with a large number of inhabitants;
- improving the system for the promotion of physical education and sport among all categories of the population;
- ensuring that citizens are interested in engaging in physical education and sport;
- ensuring the establishment and development of the volunteer movement;
The data from our study has shown the relevance of these problems and the need to address the challenges of developing the resource capacity of the municipal physical culture system to promote healthy lifestyles among the population.

The results of the study show that the key factors hindering the effective development of physical education and sport in the country, as well as the implementation of a number of conceptual provisions of the state’s social policy, include:
- insufficient involvement of the population in regular physical activity;
- ineffective and unsystematic work to promote and advocate healthy lifestyles, physical activity and regular physical education and sports among the population at the local level [7, 12].

These factors have made the development of mass sports, especially in educational institutions and at the place of residence of potential participants, one of the main directions of modernisation of the sector [11].

The study proved that one way of addressing these challenges to the development of physical education and sport in the country is to use the potential of the municipal physical education system with a focus on the personal interests and needs of the population [13].

5 Conclusion

The analysis of the study results led to the general conclusion that optimising the management of the physical activity system and focusing on personal and municipal resources can significantly increase the attractiveness of mass sport and physical culture for citizens.

In addition, the analysis of the results of the survey identified a number of requirements for the organization, conduct and content of physical culture and sports events: it is advisable to focus on family recreation, on activities designed for groups of friends, as these areas of life of citizens are among the most prosperous, therefore, they can be used as a tool to solve advertising and promotional tasks. It is also necessary to educate the adult population on the necessity, usefulness, significance of physical activity and recreation as a means of increasing working capacity, improving health, strengthening immunity; it is possible to focus on improving work efficiency as a result of participation in relevant activities.

The analysis of the results of the diagnostic study also allows us to summarise that the potential of the municipal physical education system in shaping a healthy lifestyle of the population is of great importance and lies in the availability and possibility of effective use of the following resources:
- urban (municipal) – the material basis for physical culture and sports activities, the physical culture and sports management system, the system of general and additional education in the field of physical culture and sports, the availability of physical culture and sports personnel, the established traditions of physical culture and sports events.
- personal – awareness of the benefits of a healthy lifestyle and the need for regular physical activity, the presence of spectator interest in physical education and sport activities and readiness to increase active interest in them, readiness to increase physical activity, to positively change attitudes towards different forms of physical activity, the availability of time reserves for physical activity and leisure activities.

The results of our analysis can also be used in further research on improving and intensifying the use of municipal physical culture resources to promote healthy lifestyles.

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Differentiated volumes of training loads at wrestlers of freestyle in competitive period

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Abstract. The purpose of the study is to determine the differentiated volumes of training loads (external load) aimed at certain factors of special physical fitness, according to the planned training effect (internal load) in freestyle wrestlers in the competitive period. The objectives of the study: to develop training options for weekly micro-cycles, taking into account their preferential orientation and magnitude; develop meso-cycle training options between responsible competitions taking into account their different duration – short (2-3 weeks), medium (5-6 weeks) and long (8-10 weeks); determine the battery of training means and methods and pedagogical control among freestyle wrestlers during the competitive period; experimentally substantiate the differentiated volumes of training loads aimed at certain factors of special physical fitness in freestyle wrestlers during the competitive period. The following methods were used to conduct the study: analysis and generalization of scientific literature data on the topic of research, testing, methods of mathematical statistics. The content and results of testing physical qualities of freestyle wrestlers in a competitive period are presented. During the study, the parameters of training loads, tools and methods of their implementation in one training session, during the day, in a micro-cycle were determined. Typical versions of micro-cycles were established from which typical blocks of micro-cycles are made in the competitive period, taking into account the competition calendar. Typical micro-cycle units are installed for relatively short (2-4 weeks), medium (5-7 weeks) and long (8-10 weeks) intervals between natural competitions. Variants of the individual physical abilities of wrestlers, conditionally named divided, in turn, into explosive and power, and “combination” were revealed. Also the study showed that for effective management of the training process, it is of great importance to determine the leading factors of physical fitness, while it is necessary to proceed from the fact that any option for building the training process is accompanied by a natural change in most different aspects of the preparedness of freestyle wrestlers.

Keywords: freestyle wrestling, load, micro-cycle, meso-cycle, competitive period, physical fitness

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1 Introduction

The problem of improving the training of freestyle wrestlers in the competitive period is relevant, taking into account, on the one hand, its significance, on the other hand, relatively weak performance in theory and in practice [1].

The significance of the problem is determined by the fact that the competitive period for wrestlers currently lasts 7-8 months, that is, approximately 70% of the annual cycle, and the sports result mainly depends on what the training technique will be in this period. The conclusion of a relatively weak study of the problem is based on the position that, despite the joy of recent work on this issue on many issues, there are conflicting opinions [2, 3].

Thus, the issue of differentiation of means and methods of physical training of wrestlers by orientation remains controversial [4]. Various versions of the factor structure of special physical fitness are offered and, accordingly, the focus of training loads and a different set of pedagogical control tools are different. In other words, it remains controversial what (what qualities) should be trained by the wrestler in general in the competitive period, and, therefore, what means and methods of training and control to use for this [5, 6].

Taking into account this provision, we substantiated the structure of special physical fitness and the battery of training tools and methods and pedagogical control corresponding to this structure.

2 Materials and methods

The task was set to determine the private and total volumes of directed training loads at one training session in accordance with the above gradations for freestyle wrestlers 16-17 years old, I category, candidate for master of sports [7].

The study involved 34 wrestlers 16-16 years old, I category? of six weight categories (except for the lightest and heaviest). The load parameters were determined the number of repetitions in one batch, the rest intervals between repetitions, the number of batches and rest intervals between batches, the total time of the load [8].

A common criterion for an impact (100%) volume of directional load is significant fatigue. However, specific indicators of significant fatigue for different directional loads of a certain extent are different. Therefore, as a criterion for the impact load volume, a set of indicators characterizing significant fatigue corresponding to the 3rd degree of fatigue was taken [9, 10]:

1) decrease in special performance – a decrease in the number of exercises that an athlete is able to perform in a training task or during a test with an additional load (the degree of decrease in performance under load – a test after training compared to the initial one – before training);
2) reduced ability to restore performance in rest integrals;
3) dynamics of morpho-functional indicators of the body’s response to load – heart rate, body weight, sweating, complexion, critical frequency of light flashes.

During the study, the parameters of training loads, tools and methods of their implementation in one training session, during the day, in a micro-cycle were determined. Typical versions of micro-cycles have been established, from which typical blocks of micro-cycles are made in the competitive period, taking into account the competition calendar. Thus, typical blocks of micro-cycles are installed for relatively short (2-4 weeks), medium (5-7 weeks) and long (8-10 weeks) intervals between natural competitions.

Variants of the individual physical abilities of wrestlers conditionally named by us divided, in turn, into explosive and power, were revealed.
3 Results

Means of development of power qualities of wrestlers are exercises with limit, near-limit, large and middle large resistances/88/, that is, those which can be repeated 12 times. The smaller the number of possible repetitions, the more the load is directed to the maximum force and at least to the dynamic power endurance.

For the development of maximum strength and dynamic strength endurance, typical exercises in wrestlers are bar press, tilts and squats with a bar on the shoulders, rod traction in the slope, bending of the forearms with a bar, push-ups, pull-ups, leg lifting in (PM) exercises – 4-12 times; exercises are performed in a series before failure.

To develop explosive power among the fighters, we used barely blowing exercises: dummy throws to the range, throws of weighted dummies, throws of stuffed balls, shot put, jumps from a short run, squat jumps; the number of repetitions is 3 to 10 times.

To develop static strength endurance, we used the following exercises: holding in the hang on one arm, bent in the elbow joint at an angle of 90 °; holding legs at an angle in the visa; retention of torso extensions lying on the abdomen; holding weights in wrestling-specific poses, etc.; the number of repetitions in one approach is 2-4. The duration of rest between approaches was set experimentally, based on the fact that there should be a minimum interval after which the athlete in the second approach is able to repeat the result (number of repetitions) of the first approach. The number of approaches in one series was established on the basis that in the last approach the performance (number of repetitions) should be reduced by 20-25% the rest interval between the series was defined as the smallest time after which the athlete was able to restore performance in the first approach of the last batch the performance was under-restored by 20-25%.

The parameters of the strike load volume (external side of the load) established as a result of the study are presented in Table 1.

Table 1. Parameters of impact volume of force loads at one training session at freestyle wrestlers. Compiled by authors.

<table>
<thead>
<tr>
<th>Ex. Train. Of load</th>
<th>Method</th>
<th>Means</th>
<th>Quantity of approaches</th>
<th>Quantity of approaches in one series 1:2:3:4</th>
<th>Interval between approaches</th>
<th>Interval between series</th>
<th>Total time for one session</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the development of maximum power</td>
<td>Repetition</td>
<td>Barbell exercises, pull-ups, lifting legs in the hang</td>
<td>4-12</td>
<td>8864</td>
<td>4</td>
<td>2,0</td>
<td>5</td>
</tr>
<tr>
<td>For the development of busting power</td>
<td>Repetition</td>
<td>Dummy throws, ball throwing, shot put, jumping</td>
<td>3-10</td>
<td>8642</td>
<td>4</td>
<td>2,5</td>
<td>5</td>
</tr>
<tr>
<td>For the development</td>
<td>Repetition</td>
<td>Retention of</td>
<td>2-4</td>
<td>6442</td>
<td>4</td>
<td>3,0</td>
<td>5</td>
</tr>
</tbody>
</table>
With the development of maximum strength and dynamic strength endurance, the number of repetitions in one approach in various exercises was 4-12, the number of approaches in the first series – 8, in the second – 8, in the third – 6, in the fourth – 4, the rest interval between approaches – 2.0 minutes, the rest interval between series 5 minutes.

The parameters of the impact volume of the load (external) aimed at the development of explosive force in one lesson were established as follows: the number of repetitions in one approach is 3-10 (depending on the type of exercise); the number of approaches 1 of the first series – 8, in the second – 6, in the third – 4, in the fourth – 2; The interval between approaches is 2.5 minutes, between series – 5 minutes. 1-2 approaches were performed for different types of exercises, for example, two approaches – for deflection throws, two for shot put, two for squat jumps, two for upward jumps (in one series). The total load time is about 70 minutes. The parameters of the impact volume of the load aimed at the development of static power endurance were established as follows: the number of repetitions in one approach 2-4, the number of approaches in the first series – 6, in the second – 4, in the third – 2; rest interval between approaches about 3 minutes, between series – 5 minutes, total load time about 60 minutes. It was performed according to the approach 1-2 of different exercises. Parameters of body response to impact volume of force loads (inner side of load) are given in Table 2.

**Table 2** Parameters of body response to impact volume of force loads in freestyle wrestlers. Compiled by authors.

<table>
<thead>
<tr>
<th>Dynamics of indicators</th>
<th>Reduced operability</th>
<th>Insufficient recovery in batches (%)</th>
<th>HR (in 1 min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load directionality</td>
<td>Train ex.</td>
<td>The sample of additional load</td>
<td></td>
</tr>
<tr>
<td>Maximum strength and</td>
<td>22.1 ± 0.9</td>
<td>23.3 ±0.7</td>
<td>156 ± 9</td>
</tr>
<tr>
<td>dynamic power endurance</td>
<td></td>
<td></td>
<td>71 ± 7</td>
</tr>
<tr>
<td></td>
<td>-2.5 ±1.2</td>
<td>-8.4 ±1.3</td>
<td>57 ±5</td>
</tr>
<tr>
<td>Static power</td>
<td>26.2 ±0.7</td>
<td>19.4 ±0.6</td>
<td>158 ±8</td>
</tr>
<tr>
<td>endurance</td>
<td></td>
<td></td>
<td>64 ±9</td>
</tr>
<tr>
<td></td>
<td>+2.4 ±0.9</td>
<td>7.6 ±1.1</td>
<td>59 ±3</td>
</tr>
<tr>
<td>explosive strength</td>
<td>24.4 ±0.4</td>
<td>21.5 ±0.5</td>
<td>149 ±3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>63 ±6</td>
</tr>
<tr>
<td></td>
<td>+1.8 ±0.6</td>
<td>8.2 ±0.7</td>
<td>58 ±7</td>
</tr>
</tbody>
</table>

The decrease in performance (fatigue) in the number of repetitions that the athlete could perform, and in the sample indicator with an additional load approximately coincided and corresponded to 20-25%. Under-recovery of 20-25% in the rest intervals between the series was observed under loads of maximum and explosive force in the fourth series; with a load on static power endurance – in the third series, the heart rate immediately after training was at the level of 150-160 per minute; two hours later – mostly within 60-75 min, recovery to baseline the next morning (previous morning) and was within about 55-60. Weight decreased after training by 0, 4 -0, 5 kg, after two hours the decrease was at the level of 0, 2 -0, 3 eg; the next morning, the original weight was restored. Sweating and redness of the face after training are more pronounced. The after training decreased to about 26, after two hours it was about 30-31, and the next morning it was restored and was at 32-33.

Parameters of impact volume of loads aimed of operability by power zones of general and special endurance (external load) are given in Table 3.
Table 3 Parameters of impact volume of loads on one training, aimed at development of operability in areas of general and special endurance power in freestyle wrestlers. Compiled by authors.

<table>
<thead>
<tr>
<th>Orientation of training loads</th>
<th>Method</th>
<th>Means</th>
<th>Quantity in series</th>
<th>Interval between approaches</th>
<th>Time for one session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operability in the area of maximum power</td>
<td>Repetition</td>
<td>Exercises at a maximum pace of 15-20 s (sprouts)</td>
<td>10</td>
<td>4321</td>
<td>4</td>
</tr>
<tr>
<td>Operability in the submaximal area power per min</td>
<td>Repetition</td>
<td>Exercises at pace in</td>
<td>10</td>
<td>4321</td>
<td>4</td>
</tr>
<tr>
<td>Operability in the submaximal power zone 2 min</td>
<td>Repetition</td>
<td>Exercises at a pace for 2 minutes, 2-minute contractions</td>
<td>6</td>
<td>321-</td>
<td>3</td>
</tr>
<tr>
<td>Operability in a high-power zone</td>
<td>Repetition</td>
<td>Exercises and contractions for 6 minutes</td>
<td>4</td>
<td>22--</td>
<td>2</td>
</tr>
<tr>
<td>Special endurance</td>
<td>Repetition</td>
<td>Exercises after contractions 3-4 min, extended contractions up to 10 min</td>
<td>4</td>
<td>22--</td>
<td>2</td>
</tr>
<tr>
<td>Overall endurance</td>
<td>Repetition</td>
<td>Cross, skiing, games, swimming</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

It was found that the minimum time interval required to recover from a spurt of eight dummy throws in order to repeat the same result is about 1.5 minutes. With the third repetition (approach), the result of the spurt decreased by 8-10% (the time of eight shots was extended), with the fourth approach – by 20-25%.
It was found that the rest interval between the series, in which wrestlers are capable of the result of the first approach of the first series, is minimally equal to approximately 5 minutes. However, this interval of complete recovery was not observed, since in the second approach of the second series the performance decreased by about the same as in the third approach of the first series, that is, by 6-10%, and in the third approach of the second series, as in the fourth approach of the first series, that is, by 20-25%. Therefore, the number of approaches in the second series was determined to be three. According to a similar principle, it was established that in the third series the performance did not recover and was reduced by about 10-12%, but by the second approach – by 25-30%. In the fourth series, already in the first approach, performance was reduced by about 20-25%. Therefore, only one approach was performed.

Thus, the parameters of the impact load volume aimed at developing special performance in the zone of maximum power were established: the number of batches, the number of approaches for batches – 4, 3, 2, 1; respectively, the intervals between – 1.5 min, between batches – 5 min, total load time 40 min. For the load aimed at the development of performance in the zone of submaximal power in the second minute, the parameters of the 100% volume were three series of two-minute exercises or two-minute training fights performed by the repeated method, with three-minute intervals between repetitions and 5-minute rest between batches.

The parameters of the 100% volume of loads aimed at developing special endurance were the 4 of the approach of strength or special exercises performed after a training fight for 2-4 minutes or elongated fights with a 5-minute rest intervals between the approaches (series) of the first-second and third-fourth and 10-minute between the second and third. The total load time was approximately 60 minutes.

The shock (100%) volume of the load on total endurance was a 15-20 km cross, skis, games, swimming, performed non-intermittent or interval method with intensity. The total load time is approximately 90 minutes.

The above mentioned shock (100%) volumes of directed loads characterize their inner side (number of repetitions, series, rest intervals, distances) – for the contingent of wrestlers of freestyle of 16-18 years with sports qualification of I category, examined by us.

The inner side of the load, characterizing it 100% and 60%, the volume of body reactions is shown in Table 4.

Table 4 Parameters of the body’s response to shock (100%) and supporting the volume of loads aimed at developing special performance in the power, special and general endurance zones. Compiled by authors.
Special endurance

<table>
<thead>
<tr>
<th></th>
<th>60</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15.3±0.8</td>
<td>+</td>
</tr>
<tr>
<td>95% CI</td>
<td>14.6±0.7</td>
<td>–</td>
</tr>
<tr>
<td>90% CI</td>
<td>15.0±0.7</td>
<td>–</td>
</tr>
<tr>
<td>75% CI</td>
<td>14.7±0.7</td>
<td>–</td>
</tr>
<tr>
<td>50% CI</td>
<td>15.0±0.7</td>
<td>–</td>
</tr>
<tr>
<td>25% CI</td>
<td>14.7±0.7</td>
<td>+</td>
</tr>
<tr>
<td>5% CI</td>
<td>14.6±0.7</td>
<td>+</td>
</tr>
</tbody>
</table>

| Overall endurance

<table>
<thead>
<tr>
<th></th>
<th>60</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>12.7±0.6</td>
<td>+</td>
</tr>
<tr>
<td>95% CI</td>
<td>12.0±0.5</td>
<td>–</td>
</tr>
<tr>
<td>90% CI</td>
<td>12.4±0.5</td>
<td>–</td>
</tr>
<tr>
<td>75% CI</td>
<td>12.2±0.5</td>
<td>–</td>
</tr>
<tr>
<td>50% CI</td>
<td>12.4±0.5</td>
<td>–</td>
</tr>
<tr>
<td>25% CI</td>
<td>12.2±0.5</td>
<td>+</td>
</tr>
<tr>
<td>5% CI</td>
<td>12.0±0.5</td>
<td>+</td>
</tr>
</tbody>
</table>

Note: a - immediately after training; b - two hours after training; c - the next morning; – recovery to baseline; + Moderate severity; ++ - significant severity.

Parameters of outer side of loading were defined based on indicators of her inside. The last are approximately identical to any contingent of fighters whereas external are various depending on a type of fight, qualifications, age and sex, however and at one contingent of fighters the functional state periodically changes and also external parameters of loading respectively change.

As loading size indicators (100% and 60%) on internal characteristics (reaction to loadings) were used: loudspeaker, dynamics of the weight (weight) of a body, external signs of exhaustion, the loudspeaker of special working capacity, the loudspeaker of critical frequency, light flashings with definition of indicators right after the termination of loading (training), in two hours the next morning. In day of carrying out an experiment the second training (after experimental) was not carried out.

The main criteria of shock volume were much the expressed indicators of external exhaustion (perspiration, face reddening, an incoordination of movements), decrease in working capacity by 20-25%. At 60% capacity of external the signs of exhaustion were so-so expressed, the working capacity decreased by 10-15%. External signs of exhaustion were more weakly expressed after the shock volume of loads of working capacity in a zone of the maximum power, and in two hours after the shock volume of loadings of all orientations the external signs of exhaustion were not observed.

After loadings raised generally within 160-200 beats/min. More expressed increase was after shock volumes of loadings in zones of the submaximum, big power and on special endurance (194±12; 188±11; 192±8 respectively). To a lesser extent raised after loadings in a zone of the maximum power (181±8). In two hours after loadings to initial level it was not restored and I was approximately morning practically it was restored. Later 60% of volume in two hours are a little higher than the initial level (65-70 beats/min) and was completely restored the next morning, after 60% – in 2 hours.

Loss of weight was most expressed after loads of special working capacity in a zone of big power, on special and on the general endurance (1.8±0.2; 1.0±0.5; 1.7±0.8 kg respectively). After shock volumes of loadings in zones of big power and on special and general endurance the weight undercover by next morning (on 0.3-0.5 kg).

At seen above a ratio of external and internal parameters of loadings can serve only as reference points as “cost” of external loading changes depending on fitness of the athlete and conditions of performance of loading (air temperature, wind, humidity, time of day, atmospheric pressure, etc.).

Above results of determination of private shock, volumes of the directed loadings were presented. These data have approximate character as in practice of training of fighters the unidirectional loading in shock volume at one training, as a rule, is not applied, and combinations of loadings of different orientation are usually carried out. For assessment of
a training total amounts of loadings, options of the private volumes that are the total amount and the sequence of their performance were established.

4 Discussion

According to various researches, an important factor of this direction in wrestling is the choice of rational structure of precompetitive preparation at stages of a year cycle.

For example, V.M. Yakovlev considers that it is necessary to consider requirements of competitive activity of fighters that define the sequence of introduction of means to training process taking into account increase and continuity of the impact on growth of sports results made by them [11, 12].

According to V.A. Minikhanov the high sporting achievements are provided with a complex of specific motive abilities, therefore, the structure of the applied means has to contain an adequate complex of the specific training influences [13, 14].

Being based on the data of a research us, the analysis of the differentiated volumes of the training loads directed to separate factors of special physical fitness according to the planned training effect at fighters of freestyle in the competitive period which confirmed researches listed by us before authors and showed that that effective management of special physical fitness in the period of preparation for competitions, for ensuring achievement of the maximum sportswear by the time of the responsible competitions, requires application of means of preparation corresponding not only and factorial structure of special physical training, but also loadings, optimum in size, the sequence and methods of application was carried out [15].

5 Conclusion

Based on the analysis of indicators and on our pedagogical experience, we established a certain sequence of training loads: 1) for explosive force; 2) for operability in the zone of maximum power; 3) for operability in the area of submaximal power; 4) for operability in the area of high power; 5) for special endurance; 6) for general endurance; 7) for maximum force; 8) for static power endurance.

Also, as a result of the study, it was revealed that for effective management of special physical fitness in the competitive period, which ensures the achievement of fitness by the time of responsible competitions, it is necessary to use training equipment not only adequate in terms of directivity and factor structure of the SFP, but optimal in size, sequence and methods of application. The magnitude of loads is characterized by their specific and total (total) volumes at one training session, during the day, in the cycle and stage of preparation. Direction for development of means and methods of physical preparation of wrestlers in competitive period according to the following criteria is revealed:

- focus on the main factors of special physical fitness;
- by the value of dependence on the planned urgent training effect;
- according to training options – specific volumes of loads of different directivity and their sequence at one training in its different types;
- by variants of combinations of trainings within one day;
- by variants of micro-cycles depending on their directivity and planned cumulative training effect; according to meso-cycle variants in a competitive period.

Individual variants of physical types of wrestlers having different genetically determined abilities (ratio of muscle fibers of type 1 and 2, dimensions of the heart, etc.) to special
physical actions, which we conventionally called, station wagons (with subtypes of power and explosive), and combination ones, were revealed.

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Language mentality

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Abstract. This article gives a historical review of the language mentality problem. Consideration of problems related to semantic processes is inevitably connected with the problem of the relation of language, thought, and culture. Language links our psychic and socio-cultural life and at the same time it is the instrument of their interaction. Problems of linguistic mentality, different ways of linguistic representation of the world are among the most important and discussed issues in linguistics and in this article. The theoretical background of the language mentality problem considered in this article is based on the examples of W. Humboldt’s work and L. Weisberger’s hypothesis of linguistic relativity. W. Humboldt as a founder of a theory of language has given the direction of linguistic research to new generations of scientists. L. Weisberger as well as W. Humboldt believes that is the picture of the world, world perception of the people. The author considers the main positions of Sapir-Worth hypothesis as a theoretical basis for the differentiation of the ways of the language perception of the world. In the work, the methods of theoretical (analysis, synthesis, systematization, comparison) and empirical (study of literature, observation) research were used in a comprehensive manner. The results of the research are the examples of differences in language picture of the world (and in language mentality accordingly) in English and Russian languages.

Keywords: Sapir-Worth hypothesis, language perception of the world, language picture of the world, language thought, language mentality, national character of the language picture of the world

1 Introduction

The differences of language mentality, different ways of linguistic representation of the world are among the most important and discussed issues in modern linguistics.

Consideration of problems related to semantic processes is inevitably connected with the problem of the relation of language, thought, and culture. What is the relationship between thought processes and language? To what extent patterns of semantic nature affect the evolution of thought? What is the relationship between the facts of the language semantics and culture? All these questions are really vital and interesting for language research [12].

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Language links our psychic and socio-cultural life and at the same time it is the instrument of their interaction. Problems of linguistic mentality, different ways of linguistic representation of the world are among the most important and discussed issues among linguists, philosophers, culture experts, psychologists[1, 19, 20, 6, 7, 14, 18, 21]. It also should be considered in terms of COVID-19 pandemic teaching students online[8, 10, 11,16].

2 Materials and Methods

The question of differences in language mentality is quite relevant for many researchers and it has deep theoretical background (see Sapir-Worth’s hypothesis[2], W. Humboldt, L. Weisberger, and Potebnya’s works).

The idea that the world is seen through the prism of his language, of course, is not new. The idea of the determining the role of language in human thinking, the connection of language with the mental and spiritual life of the people, their culture belongs to W. Humboldt[4], who considered language the Creator of reality, that forms public consciousness. According to W. Humboldt, everything in language is the incarnation and reflection of the national spirit.

W. Humboldt[5] was the founder of the theory of language which can be considered as the product of human spiritual force (that is constantly developing) and as a phenomenon of human society. He has given the direction of linguistic research to new generations of scientists; the direction, designed to penetrate into the complex mechanisms of language, intellectual, spiritual and cultural activities of the people.

The ideas of W. Humboldt created a ground for the emergence of diverse concepts, which are based on the idea that language elements express some certain thought contents. The differences between languages are considered as a manifestation of the speakers’ way of thinking and they also embody specific ethnic culture.

The desire to interpret all the features of each specific language as features of thinking of its speakers found the most complete design in the concept of L. Weisgerber and in the hypothesis of linguistic relativity, known in history as Sapir- Worth hypothesis[15].

L. Weisgerber[17], as well as W. Humboldt believes that language is the mind's "intermediate world", resulting from the interaction between the world of things and the world of consciousness. After such engagement, the language itself creates the world around us. Language is the picture of the world, world perception of the people. The difference of languages is a manifestation of the differences of views on the world, and for people who speak different languages, the world looks different.

3 Results and Discussion

At first let’s consider the problem of differences in language mentality in the historical perspective on the example of changing the meaning of English words. A decisive influence on the processes of thinking and their reflection in language provides extra-linguistic reality. The conceptual world reflects prevailing of ideological ideals in society. For example, the worldview of a medieval man was antagonistic to the idea of any progress. In the public consciousness the religious view on the vicious nature of man was dominated. Perhaps the belief in human progress has entered the public consciousness only in the XVII – XVIII century thanks to the efforts of philosophers. The history of the semantic development of the word progress reflects the dialectics of the concept (the original meaning of the word is "the physical movement in space; a journey committed by royalty", while "development for the better, the process of improvement" the word only got in the XVII century).
On the language level it reflected in the fact that in the medieval period there were some cases of change of the pejorative meaning of the word, accompanied by complete oblivion of the primary neutral meaning of the word.

The word *knave* in old English *cnapa, cnafa* was used with the meaning "boy, young man." In the translation of the New Testament the word means Christ. The change of the meaning went in the direction of "young man" > and "disadvantaged" > "young servant." The change of the meaning of the word servant was subjected to a deterioration. So, the word knave has developed such additional meanings as "a liar, a knave, a scoundrel" and it eventually became dominant in the semantic structure of the word.

In Shakespeare’s time, however, this word obtained a positive connotation: Gentle knave, good night, but this does not mean that in Early Modern English there was the improvement of the meaning of the word. We can illustrate these semantic changes in the tables 1,2 [9]:

**Table 1. Positive connotation development of the word knave**

<table>
<thead>
<tr>
<th>word</th>
<th>Old English meaning</th>
<th>Middle English meaning</th>
<th>Early Modern English meaning</th>
<th>Development of the meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>cnapa, cnafa</em></td>
<td>boy</td>
<td>Rich person</td>
<td>Young servant</td>
<td>+</td>
</tr>
</tbody>
</table>

**Table 2. Negative connotation development of the word knave**

<table>
<thead>
<tr>
<th>word</th>
<th>Old English meaning</th>
<th>Middle English meaning</th>
<th>Early Modern English meaning</th>
<th>Development of the meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>cnapa, cnafa</em></td>
<td>boy</td>
<td>liar</td>
<td>rascal</td>
<td>-</td>
</tr>
</tbody>
</table>

Socio-psychological stereotypes, which are based on the world views are crucial to linguistic processes. Socio-cultural, religious, philosophical, political factors influenced the nature of the semantic changes in the meaning of words denoting people of different social, professional and ethnic groups. As Sapir wrote, “Language is a guide to ‘social reality’…. Human beings do not live in the objective world alone…”[3]. Deep social contradictions of feudal society in the medieval era led to changes in pejorative words designating people of low social status. Smoothing of social contradictions in modern society is reflected in the character of the prototype semantic changes in the meanings of words in the twentieth century. The decisive influence of socio-psychological factors can be traced in the development of semantics of words denoting various national groups of women.

In Middle Ages and in earlier times a woman was understood as something sinful. It is reflected in the language of those times. See the examples from the table 3[9]:

**Table 3. Negative connotation development of the words courtesan and vigaro**

<table>
<thead>
<tr>
<th>word</th>
<th>Middle English meaning</th>
<th>Late Middle English meaning</th>
<th>Development of the meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>courtesan</td>
<td>A woman attached to a royal court</td>
<td>A court mistress, a prostitute</td>
<td>-</td>
</tr>
<tr>
<td>vigaro</td>
<td>Manlike, heroic woman</td>
<td>A termagant, a scold</td>
<td>-</td>
</tr>
</tbody>
</table>

Now let’s focus on the problem of differences of language mentality through the concept of language picture of the world. It is quite obvious that different languages impose their own
specific picture of the world, a significant component of which is originality and imaginative
resources, primarily of a metaphorical character. This unique and imaginative character of
different world pictures for different languages is the way to further development of the
creative spirituality of the person, as W. Humboldt and A. A. Potemkina wrote[13].

Imaginative frameworks of the native language reflect frameworks of the world,
influencing the mentality in general. The person is internally tied to his native language, its
semantic system, perceiving it through the prism of surrounding world.

A person is close in spirit to semantic processes, in particular semantic reinterpretation,
based on the national wealth of cultural and historical heritage. Using images of their native
language people unconsciously absorb national forms of material and spiritual culture.

Due to a common perception of linguistic phenomena, people have a sense of unity, as
through the language the identity is fixed and it distinguishes one community from another.
Whatever the social and educational status of the speaker of the Russian language is, the word
swallow for him is emotionally estimated: with this word he can apply to the nearest woman
or a child, while for native speakers of English the word swallow is only a bird, flying very
fast and forcasting spring (see the English proverb containing the image of swallow: One
swallow does not make spring). A Russian native speaker may not know the variety of
associations connected with this word in Russian (in Russian we have many proverbs and
sayings connected with this word), but through a figurative use of this word in a specific
national way his mind has been imbued since his childhood with this image.

So language is some kind of a mirror that stands between us and the world: it does not
reflect all peculiarities of the world, but only those that seemed to our ancestors most
important. Of course, the mirror is, so to speak, transparent. The mirror is not a stone wall.
We can learn another language and see the world through the eyes of other people. Even
when you are "inside" your own language, you can easily change your ideas.

4 Conclusion

It is possible to speak about different language mentalities. The language mentality of English
people in Middle Ages was quite different from the language mentality of people in the XX
and XXI centuries. Extra-linguistic reality influenced the language they used and we use now
through the words, their meanings, metaphors.

Different nations have different language mentalities. Every nation has its own language
picture of the world; they have different socio-economic circumstances, different images
reflecting reality and we can observe it in their languages through the usage of words,
metaphors and other linguistic phenomena.

Coming from W. Humboldt’s ideas about differences of language mentalities need to be
further developed. These ideas should sound in full voice now, when the modern world is
under the danger of loss of national identity.

The idea of Sapi-Worth hypothesis about the difference of language mentality is very
important and relevant to modern linguistic modeling of the world and gives a wide field for
further modern scientific research. For the linguists it gives much food for thoughts in such
areas as semantic changes of the meaning of words in different historical periods, research
of metaphors, studying of the concept of the language picture of different nations and the
world in general.

The problem of differences in language mentality is deeply interdisciplinary in nature and
can be considered by the representatives of different fields of science, not only for those who
study languages, but for cultural scientists, philosophers and psychologists as well. For
teaching students in terms of COVID-19 pandemic this problem is also vital.
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Identity crises of pupils and how to deal with them

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Abstract. The article analyses ways of solving the personal identity crisis of primary school children. Effective techniques and developments that provide timely psychotherapeutic influence and contribute to the harmonious development of the child's personality are described. Behavioral, cognitive, characteristic and communicative features in overcoming the complexities of personality identity crises are investigated. The personal constructs of junior schoolchildren in case of identity crisis are determined; the character of the interconnection between the leading activity and the qualitative transformation of the personality of junior schoolchildren in the correlative process of identification and adaptation of the self in the educational process are shown. The system diagnostics of the development of an identity crisis is developed and in this connection, the factors contributing to the mitigation of the manifestation of this deformation are revealed. It is concluded that in this way the structure and the contents of a personal identity crisis of a young schoolboy is reflected in the dynamics of the process of modern social space, i.e. "identity search" and understanding that a person is capable of overcoming personal crises.

Keywords: identity, personality, younger pupil, adaptation crisis, learning, society, situation, development.

1 Introduction

The modern educational paradigm focuses on the development of the child's individuality and personal growth as well as on his or her harmonious entry into society. In most studies the issues of personality crises and the identity of children are considered from the traditional positions in psychology and pedagogy, which leads to contradictions with the surrounding conditions.
realities. In this regard, the research aimed at finding ways and mechanisms of solving personal identity crises in children of primary school age.

In this time of uncertainty, active life becomes a space for personal development and identity change. With the increase of social and informational space a person is constantly in search of his/her place, role and purpose in society, during which time personal formation takes place as the person is going through the stages of self-definition and the feeling of own ego-identity [1,12].

Since identity crisis is born in early childhood, it is important to study the personal prerequisites that create conditions for the formation and development of identity in childhood.

It is the study of the peculiarities of self-identity in the period of primary school age that reveals the child's understanding of the self as a subject, the surrounding space and the internal reference to one's experiences in relation to the event processes of the personality from the outside world [5].

2 Materials and Methods

The methodological basis of the study centers around the principles of the activity-meaningful and existential-humanistic approaches of domestic psychological and pedagogical science. J.S. Vygotsky's ideas, G. Allport's understanding of crisis as a necessary component of normal personal development, E. Erikson's concept of psychosocial identity and its crisis as well as V. Frankl's teaching about the desire for meaning all played a key role in developing the theoretical and methodological basis for research about the constructive role of crisis as a mechanism of personality development. The methodological basis of the study sets methods aimed at identifying indicators of identity crisis in primary school children. In order to clarify the reasons of the crisis, to obtain additional information about its indicators and possible solutions, a semi-standardized interview, biographical materials, an extended interview or a series of them were carried out.

3 Results

The group of participants in our experimental study were 30 elementary schoolchildren, aged 7-9 years old, from Grozny Secondary School no. 7.

In sessions with the children we used exercises to open up opportunities to overcome situations of identity crises. After the lessons, the diagnostic groups were defined based on the content of the internal conflict underlying the personal identity crisis. In the first group of students the crisis was not reflected or was perceived as vaguely present; in the second group there was an understanding of their condition and they had ideas how to go through the crisis painlessly, applying the skills of reflection received in the lessons.

We therefore assumed that the subjects could be diagnosed using methods that contained the criteria needed for the study:

1. The V.V. Stolin self-report questionnaire (SRQ). Stolin, where the self-blame score on scale 5 directly correlates with L.B. Schneider's Personal Identity Research (PIR).

2. The Dembo-Rubinstein method, where the "Self-esteem" score correlates negatively with the "Expected Attitude from Others" and "Self-Acceptance" scores of the Self-Relationship Questionnaire (SRQ);
3. The Personality Identity Research Instrument (PIRI), in which the "My Relationships with Others" score correlates negatively with the "Expected Attitude towards Others" score on the Self-Ratio Questionnaire (SRQ).

   Analysis of research findings
   In processing the data:
   1) we identified the leading factors of the personality of younger schoolchildren in the situation of identity crisis;
   2) we studied the character of the interrelations of leading activity and showed the qualitative transformation of junior schoolchildren's personality in the correlative process of identification and adaptation in the learning process.

   Correlation analysis, analysis of average values and comparative analysis were carried out according to the results of the experimental study.

   Thus, correlation analysis revealed direct correlations with such parameters as "Self-blaming" (according to the self-esteem test) and the parameters "My inner world", "My family" (according to the MILI method), the parameters "Self-esteem" (according to the Dembo-Rubinstein method) and "Expected attitude of others" (according to the self-esteem questionnaire). This arrangement of interrelations shows the presence of internal conflict in the subjects under investigation.

   In fact, we see that the given values characterize pupils from different sides, viz. their desire for self-assertion, independence and autonomy (factor E), emotional stability and freedom of choice, realistic attitude to life, the awareness of reality’s requirements and the achievement of set goals (factor C).

   The desire of younger pupils to be responsible, accurate and neat, to have a high level of self-control, to be demanding on themselves and to be disciplined is described as factor G. Empathy while to show sympathy, understanding and empathy and also the need for attention and help from other people is reflected as factor I.

   However, the observed lability, expressiveness and present susceptibility to affective experiences, as judged by factor A, can lead to emotional disorganized thinking when organizing physical activities (factor B). This is not the case with learning activities where group decision making and joint action are required (Factor J). Sociability, openness and trustworthiness are evident when students are oriented mainly to the opinion of the group. The presence of passive decision-making is determined as factor Q2.

   Solving the following task of transforming the personality of younger students in the process of self-identification and adaptation in the learning process, we determined the presence and nature of the leading personality factors, assessed their form and direction by applying Pearson's correlation coefficient.

   Statistically significant relationships exist between the factors: E and I ($r = -0.265$); B and J ($r = -0.308$); I and J ($r = -0.253$); J and Q2 ($r = 0.104$).

   The positive correlation between factors J and Q2 and the negative correlation between factors B and J reveals the child's need for social support and readiness to follow norms and rules.

   The characteristic of factor E has a mean value, which indicates dominance over other personality traits. This factor reveals independence and resourcefulness, but in a negative value it contributes to the rigidity of the personality in terms of empathy and tolerance for self and others. Thus, we see a distancing gap in relation to others. The observed negative values of factors E and G show a kind of superiority of subjects over others, which weakens adherence to generally accepted community rules and norms.

   The multidirectional correlations of factor C and other factors viz. O ($r = 0.4949$) and H ($r = 0.4804$) characterize the insecurity of the examinees. The higher the values for factor C, the more dependent the children's behavior is on the actual activity.
The direct dependence of factors C and Q3 \( (r = 0.3382) \) determines the level of self-control, orderliness, ability to plan one's time, understand demands from society and monitor reputational indices.

The paired parameter C and Q4 \( (r = -0.364) \) is an indicator of self-management, low frustration, calmness and emotional stability.

### 4 Discussion

According to the tradition and representation of classical domestic psychologists (L.I. Bozhovich, L.S. Vygotsky, V.V. Davydov, A.N. Leontiev, V.A. Petrovsky, D.B. Elkonin, etc.) the junior school age is referred to as the period of personality formation optimal for the development of an internal position and its value self-concept.

The analysis of research revealed that most directions are related to the peculiarities and conditions for the adaptation of the child to the new conditions of life in the transition to school education. The child needs success in mastering a new type of activity, i.e. learning, as well as to develop cognitive, motivational, and other spheres during this period [6]. But the study of the problem of the emergence of personal identity crisis and ways to overcome it is still in demand.

According to Erikson [11], a child's identity emerges through the process of learning, in which recognition is gained through mastering activities and understanding the purpose of objects in the environment. Hence, the opinion of N.L. Ivanova, who has designated the identity component as an activity component, deserves much attention [3].

In its evolutionary development, personal identity develops dynamically, non-linearly and irregularly, moving in various ways, now in a progressive, now in a regressive direction. Nevertheless, overcoming emerging crises is predefined by the direction set by the individual himself and it depends on the state of conflict between the actual elements of identity and the ways of "organism adaptation" to the surrounding reality, finding its niche. When biological or social change occurs, all elements of identity are restructured, adapting to the individual according to the specificities of his or her social experience. But in order to maintain one's identity the individual may not notice the changes taking place, engaging in various personality defense strategies to prevent the emergence of negative depressive states [7].

Identity crisis awakens a person's individuality, a correlated understanding of real events and the future is included. Smooth entry into society is facilitated by the acquired knowledge of the professional, cultural and social environment in which the person revolves [11,14,15].

Personal identity crisis may be hidden, "set" by certain life circumstances, transforming into a "multiple crisis" [2]. Having reached the threshold of identity, the subject in a crisis situation enters a reverse state, returning to a lower level of identity. If the process of overcoming the crisis is triggered, full identity is achieved, which is interpreted as "being oneself and finding one's niche in the chosen social environment" [2]. The work done on personality crises began with psychoanalytic theories and a series of experiments on intrapersonal conflicts. The research conducted by psychologists looked at the personality in the process of becoming, which means that the personality may contain a potential crisis within it.

The adopted status of the younger pupil is related to learning as a leading activity, which significantly changes behavior, opens up new possibilities in cognition and consciousness i.e. personal abilities, but at the same time it can lead to an identity crisis. Therefore, our research is focused on the behavioral, cognitive and characteristic features of the pupil.

L.S. Vygotsky, E. Erikson, R. May emphasize that a crisis often leads to a renewal of both the personality itself and personal development. By analogy, identity crisis is designed to cope with side effects that interfere with personal development and hinder the further favorable course of life [7].
A prerequisite for a young pupil’s strong identity of a is the realization of the value and meaning system, above all, in learning activities. Thus, A. Maslow found an understanding of identity in 'the discovery of desires and characteristics in their ability to find their true expression'. If the personality has clarified its meaning content early in its development, but acts contrary to it under pressure from the circumstances, identity is threatened, and with prolonged exposure turns into a personality crisis. In this case, the values of experience are disturbed. The person feels the monotony of life and its meaningless flow and the observation of events causes negative emotions, fear to discuss situations with significant people. The person becomes closed, loses confidence in his feelings about the world, himself, his perceptions and experiences. There is a state of fatigue, lack of strength and energy [4].

A. Erikson describes the psychological essence of identity crisis as a "state of being and becoming", whereby "...the state is well-conscious but remains unconscious in the motivational aspect", hence the need of the individual to overcome the identity crisis [11].

Changes in the social situation of a child's personal development, for example, during adaptation to schooling, create prerequisites for the need to form a new personal identity with the support of his existing personal resources [5].

The aim of the pilot study, which focused on exploring the personal identity crises of younger pupils, was to show how younger pupils can overcome their personal identity crises.

5 Conclusion
The presented report on the statistically significant correlations between leading factors of the "personality profile" of elementary school students allowed us to outline the following:

1. In the processes of adaptation possibilities and the individualization of the personality of elementary school pupils qualitatively new changes take place, determined by the special status of transformations i.e. the structure of personality moves to a new social situation of development, new systems of relations.

2. The child’s new life position of in relation to himself, to people, to the world is actualized. The content side of activity, both educational and extracurricular, is defined.

3. The manifestation of independence (factor E) becomes an accessible way for self-realization and self-assertion, marking the transition in personal development from one stage to another.

4. The new capabilities of the individual change the social situation of development. The need to follow not only the requirements of others, but also one's own requirements emerges.

5. The movement forward for the individual becomes the Power of the Self (by Factor C). This factor determines the emotional stability and self-control in behavior, the formation of judgements and actions, and the child's awareness of his/her capabilities.

6. The personal development of younger pupils with the emergence of an identity crisis exhibits a characteristic feature viz. the search for self-identity, the unity of which ensures the protection and preservation of personal identity.

7. The observed connections between self-blaming and parameters "My inner world", "My family", "Self-esteem" and "Expected attitude of others" indicate the presence of intrapersonal conflict that develops into interpersonal tension in relationships. This conflict is hidden at the root of the personal identity crisis of the younger pupil.

8. Having a high level of self-esteem, respondents are cautious about establishing trusting and harmonious relationships with others, as this is hindered by their mismatch of Ideal and Real Self.

9. The respondents show disintegration in the state of their inner world, their future, their relations with society, which indicates the presence of a pronounced identity crisis.

In addition, the younger pupils, in order to eliminate anxiety, negative expressions of emotions and to reduce the number of rejected parts of the self, present in an identity crisis,
form defensive personal mechanisms, which can be an obstacle to overcoming the crisis. This happens because of:
- failure to identify the problem, denying its existence, ignoring one's experiences, hoping the problems will disappear on their own;
- mental fragmentation, in which conflicts between "parts" of the personality do not affect the entire system, resulting in a balanced personality. In this case, the experience of the self in "parts" removes the individual from the acquisition of identity;
- depersonalization, in which the subject's identity is dissozialized.

The state of the identity problem can be presented as a) an identity crisis in the structure of the personality under conditions leading to a loss of subjectivity; b) a personality deprived of structural certainty and logical completion [10].

With the presence of personal identity, it is necessary to point out the conditions that prevent the emergence of identity crises:
- Identification, adaptation and cooperation of the individual and society;
- Developed reflection of one's self-identity experiences;
- communicative mediation in the relationship between the self and the Other;
- understanding and accepting the inner self;
- selection of new values and goals and, if necessary, decision-making to overcome personal crises.

Let us consider these problematic tendencies from the perspective of their changing critical content features. The first feature lies in the issue of the self-identity of the individual, the significance of individual differences and the search for a basis for one's uniqueness. The second feature relates to the child's experience of his or her own self-identity and the vision of his or her being in the temporal and spatial range taking into account his or her identification potential. The third characteristic is the oppositional context "I am society", in which the child compares his or her subjectivity in constructing an image of the world with the social environment.

The identity of young pupils is shaped through the inner conflictual variants of social self-categorization between 'I am like everyone else' and 'I am unique'. That is, there is a dependency imposed by the social representations of the individual's identity, self-efficacy and subjectivity. Personal and social identities are mixed and the subject constantly reassesses his or her actual state. The reduction of internal uncertainty provokes the formation of personal crises through the experience of any of their identities [8].

The understanding of identity in the personality's system of possibilities comes from the summation of imagined visions of the future. It has a motivating function in which the child can identify with past experiences and evaluate his or her worldview in a social context with the coherence of motivating actions that influence behavior and positive self-image [2].

When dealing with a personal identity crisis we took into account the restructuring of the younger pupil's self-image during the adaptation process to school. The preservation of the key level of life and meaningful conditions for the functioning of the subject influences, the desire to change the current situation, to adjust the conditions of life to himself and to change his attitude to the new conditions of existence.

Factors for overcoming the personal identity crisis are based on the following strategies:
- constructive attitude and independent decision-making, realizing the meaning dispositions;
- Trust in a significant other for support during the self-determination phase and the manifestation of one's intentions;
- An emotionally salient life event against a backdrop of reflexive analysis, conscious action that contributes to restructuring or creating a new value system.

These factors are indicators of an identity crisis that allow a timely diagnosis of the crisis and clarify the mechanism for overcoming stagnation in personal development. This is
important to take note of in order to further develop effective approaches for early intervention.

The main help in resolving an identity crisis is …
- the gradual reconciliation of the emerging contradictions in the self-image;
- the restoration of a continuous perception of the self before and after actions taken;
- the integration of the ego identity on individual, personal and social levels;
- the elimination of contradictions by rebuilding the foundations of the self-image and expanding the repertoire of acceptable identifications;
- the development of flexibility in responding to stressful situations.

We used the following techniques in our work with younger pupils to address the personal identity crisis:
- "Before, After, Now", "Life Line" to restore the perception of the continuity of existence;
- "Imagine yourself older", "Letter from the future", "My day in 5 years" to re-evaluate events and accept the situation;
- Imagine unbearable feelings as a natural phenomenon in response to aggression and heartache;
- "Going to the Wise Man", "An Animal in Need of Help" to find resources for overcoming an identity crisis;
- "A safe place where I feel good", "Building a fortress" in restoring a sense of security and autonomy:
- "Building a New Home", "The Ideal Self" in the formation of a new image of the self.

The empirical study phase showed a successful resolution of the personal identity crisis; personality development functions were realized such as: 1) overcoming the stagnation that occurs when the basic values and meanings of personality are not realized; 2) overcoming the frustrating circumstances for personal activity and activity that did not contribute to playing the various roles with which the junior school student identifies himself; 3) preservation of folk traditions, national and historical identity to ensure intergenerational continuity.

The present priority in the approach to the study of personal identity crisis is formed and developed as a "flow of life history", in which the subject constructs its feelings on the basis of integrity and continuity in the comprehension of received life experience [8,15].

The discourse on the emergence of identity crisis reflects the context of the communicative events created, making us think about the criteria of self-categorization, the comparison of one's role as a subject in the social context of a unified dialogic space. In this way the very structure and content of the personal identity crisis of the primary school student reflects the dynamics of the process nature of contemporary social space i.e. the 'search for identity' and the understanding that one is capable of overcoming personal crises.

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Verbal portrait of the linguo-cultural character type “dandy” in the English-language literary text

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Abstract. Wilde is considered to be one of the masterminds of dandyism of the late 19th century. There are a number of articles devoted to dandyism as a philosophical concept in Wilde’s works; however, the insufficiency of linguistic studies devoted to this phenomenon in the author’s literary heritage makes it important to undertake a comprehensive study of the concept of “dandy” as a linguo-cultural character type and to compose his verbal portrait. The purpose of the study is to create a verbal portrait of the linguo-cultural character type “dandy” based on the material of the novel “The Picture of Dorian Gray” by O. Wilde. The main methodological principles used in the article include the anthropocentric approach, which allows studying a human being through his/her language and establish the interrelation of cognitive and linguistic structures, and the linguo-cultural approach which is aimed at revealing the specific, unique features in any culture. In order to realise these approaches, the study involved such methods as analysis, generalisation and interpretation of the linguistic material, methods of directional sample of linguistic facts and description of linguo-cultural character types. Following the research, a five-component scheme of linguistic portrait was compiled, which includes the study of socio-cultural information, verbal situation, verbal behaviour, language units and cognitive sphere. This scheme enabled the authors to make a socio-cultural portrait of “dandy”, which gives an idea of appearance, social status, lifestyle, preferences and world outlook of a dandy in the late 19th century.

Keywords: language personality, verbal behaviour, linguo-cultural character type, verbal portrait, dandyism, socio-cultural information

1 Introduction

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Today, increasingly more attention is being paid, within the anthropocentric paradigm, to the human factor in language. Consequently, the value of research aimed at identifying the verbal and non-verbal behaviour of an individual, a social group or ethnicity is now increasing in importance.

The language personality is treated as a person manifesting himself/herself in communication. A distinction is made between individual, type-specific/collective/group and national personality. At present, description of particular popular figures – politicians and artists – is practiced. A technique has been developed to recreate a collective personality, for instance, an intellectual, a financier, a business representative, etc. [1-4].

According to V.I. Karasik and E.A. Yarmakhova, the linguo-cultural character type can be regarded as a certain type of collective language personality [5]. The linguo-cultural character type should be regarded as a character that incorporates the most striking features of its prototypes and that exists in a generalised form in the culture-bearers’ minds.

“Dandy” is an English linguo-cultural character type that marked an entire epoch with its influence. It defined the worldview of intellectual and arts elite, the style in fashion, the features of behaviour of fashionable young people up to the 1930s. Yu.M. Lotman notes that originally dandyism had two varieties: “pampered refinement of the individualist” and “romantic nonconformity” [6]. Later, the concept of “dandyism”, being complex and multifaceted, took a variety of forms, as reflected in numerous studies [7-10].

O. Wilde can be considered as an exponent of nineteenth-century dandyism. O.B. Weinstein, a major researcher of dandyism, notes that “the image of dandy-aesthete is O. Wilde’s original and most successful sophisticated role” [11]. It has been found out that there are a number of articles devoted to the study of the phenomenon of “dandyism” by example of O. Wilde’s works [12-14].

It should be noted, on the basis of the analysis of existing scholarly publications on “dandyism” that the novelty of the research is accounted for, in the first place, by the absence of comprehensive linguistic analysis of “dandy” as a linguo-cultural character type. Secondly, a five-component scheme for the description of the linguo-cultural character type, making it possible to describe his verbal portrait, was compiled for the first time. Third, a comprehensive analysis of the linguo-cultural character type “dandy” of the Decadence epoch, grounded on the novel “The Picture of Dorian Gray”, was made on the basis of this scheme.

The hypothesis of the work is the assumption that the socio-cultural portrait of a “dandy”, as a manifestation of language personality in a fiction text, can be made on the basis of detailed study of socio-cultural information, verbal situation, verbal behaviour, linguistic units and cognitive sphere of the literary work.

The purpose of the work is to describe the set of linguistic means used to create a collective image of the Decadence-epoch English dandy in O. Wilde’s novel “The Picture of Dorian Gray” and to compose a verbal portrait of generalised linguo-cultural character type on the basis of identified characteristics.

In accordance with the set purpose, the following objectives have been realised:
1. to analyse and generalise the available literature and, based on the above, to compile a five-component scheme for creating a verbal portrait;
2. to make a detailed study of the key features of language representation of the linguo-cultural character “dandy” represented by Lord Wottop, as based on the proposed scheme; to correlate them with the author’s style and compile his verbal portrait.

2 Methods

In order to shape the image of the linguo-cultural character “dandy” in the novel “Dorian Gray” by O. Wilde, specific methodology for language personality description was used;
Communicative and pragmatic analysis of the linguistic material was made, followed by cognitive interpretation of the obtained data; the methods of continuous sampling and speech portrayal were applied.

3 Results

Based on the analysis of the main approaches to compilation of linguistic-personality verbal portraits, a five-component scheme was created, which includes the study of socio-cultural information, verbal situation, verbal behaviour, language units and cognitive sphere, as presented below (see Fig. 1).

![Fig. 1. Scheme of creating a verbal portrait of the linguo-cultural character type “dandy”.

A verbal portrait of the linguo-cultural character type “dandy” was made on the basis of the scheme; all components of the proposed scheme were considered in its description (see Fig. 2).

4 Discussion

In order to realise the purpose of the study, it is necessary to explain the treatment of the terms “language personality” and “verbal portrait” used in this essay. In the present study, following N.V. Yudina and E.A. Kuznetsova, the verbal portrait is viewed as a way of describing a language personality through his/her verbal behaviour and speech preferences [3].

Among the variety of verbal portraits, a special place belongs to portraits of literary characters. V.A. Maslova states in her article “Language personality and verbal portrait: theory and its interpretation in the model of poet’s regional personality”: “The linguistic (verbal, communicative) portrait is the worldview of a poet (or other creative personality) fixed in the language...” [15].

To date, various schemes for describing a language personality have been developed. For instance, L.P. Krysin, creating the verbal portrait of a Russian intellectual, focused on the features of the latter’s language and speech behaviour [1].
Fig. 2. Verbal portrait of the linguo-cultural character type “dandy”.

The scheme of analysis proposed by Yu.N. Karaulov, who made distinction between verbal-semantic, linguo-cognitive and pragmatic (motivational) levels of language personality, is hereby treated as classical [16].

N.V. Yudina and E.A. Kuznetsova distinguish three levels of analysis: 1) lexical 2) language personality’s view of surrounding reality, as contained in the meanings of words and expressions, collectively referred to as “the speaker’s world image” 3) communicative roles, strategies, tactics [3].

Following the analysis of the main approaches to compilation of language personality’s verbal portraits, a five-component scheme of verbal portraits was developed, namely the
The study of socio-cultural information, verbal situation, verbal behaviour, language units and cognitive sphere (see Fig. 1).

The components of this scheme may vary and be supplemented depending on the specificity of language personality. Below, in order to create a verbal portrait of the linguocultural character type “dandy”, the most relevant elements for its description will be considered (see Fig. 2).

The socio-cultural information in “The Picture of Dorian Gray” tells about Lord Henry’s age, social status, appearance, leisure time, etc. It was found out in the process of research that the author uses the following tools to create the character’s image:

- direct verbal characteristics (direct speech of the described character);
- indirect characteristics (speech of other characters);
- internal monologue;
- author’s description and remarks.

Little is known about the lord’s appearance: “Lord Henry stroked his pointed brown beard and tapped the toe of his patent-leather boot with a tasseled ebony cane” [17]. More detailed description of the lord is reproduced through Dorian’s first impression of their acquaintance. Henry Wotton’s image, as perceived by young Dorian Gray, is associated with irresistibility and mysteriousness [17].

The author constantly draws attention to his voice, well-groomed aristocratic hands and eyes. Lord Henry is educated, has profound knowledge of art and languages, adheres to the own philosophical concept.

The reader gets the core information through the detailed study of the lord’s verbal and non-verbal behaviour. One learns about the lifestyle, tastes and philosophical views of the lord-dandy from the hero’s direct speech. Lord Henry fights against sin by sin in both verbal and non-verbal ways, by adopting the ideology of new hedonism. A true dandy of the Decadence, a refined aesthete, the lord recognises the only value – Beauty [17].

The next element in the creation of a verbal portrait is characterisation of a verbal situation. Lord Henry uses verbal spontaneous speech in the novel. The situations of both high-society talk and friendly conversations with Dorian Gray and Basil Hallward are frequent in the novel. It should be noted that Wotton’s style of conversation hardly varies, not depending on the number of interlocutors and communicative situations, the same as the framing of his phrases. He is always ironic, sarcastic and impassive.

During the aristocratic small talk, the lord always appears at ease and relaxed, lounging on a sofa or sitting in a drawing room, at a dinner party or reception. He is portrayed either holding a glass of wine, champagne or orange vodka, or picking out fruit, olives or strawberries. The hero expresses complex ponderisms in a playful way, takes an active part in verbal battles, impresses his interlocutors with unexpected thoughts and contradictory judgments. The subjects of conversation are varied – from literature and art to politics and high-society gossip.

Analysing the features of Lord Henry’s verbal behaviour, it is worth to note that he can be considered a dominant personality. Lord Henry uses a variety of verbal techniques to influence the listener. The strategy of Lord Henry’s communicative behaviour is his skilful orchestration of events by manipulating people: “... who found an exquisite pleasure in playing on the lad’s unconscious egotism [17].

The lord is impeccably polite and observes all necessary conventions and required forms of address. He often uses the technique of antithesis and gives definitions of various concepts, frequently repeats the words “always” and “never”.

There are elements of language-play in Lord Henry’s utterances, like in the speech of any dandy. The language-play concept has a philosophical basis and is explained by recognition of the illogical nature of things around us.
The peculiarity of Lord Henry’s speech is its aphoristic nature. Using this favourite dandy’s device, the character creates short but capacious statements having profound philosophical meaning: “Good resolutions are useless attempts to interfere with scholarly laws” [17].

Let us consider in detail the description of linguistic units and cognitive sphere used for recreation of the linguo-cultural character of “dandy” in the epoch of Decadence. Being well-educated and well-read, Henry Wotton uses literary language. His speech contains allusions and references to famous works of art, French words and expressions.

Lord Henry chooses language elements with care. The word is a powerful means of influencing people around: “Words! Mere words! How terrible they were! How clear, and vivid, and cruel! One could not escape from them. And yet what a subtle magic there was in them” [17]. It is the words told by Lord to Dorian during their first meeting that prompted the further development of the scene.

His statements, for the most part, are not at all dialogical and represent extended texts of reflective nature. They are characterised by completeness at the syntactic level. Many sentences are in the form of definitions. A great number of complex sentences can be observed. Simple sentences are usually extended, without elliptical constructions.

5 Conclusion

In the process of the research, the works of modern scholars devoted to the study of the language personality and formation of verbal portraits were analysed. A five-component scheme for the description of the linguo-cultural character was proposed, which includes socio-cultural information, verbal situation, language units and their main characteristics, as well as cognitive features. This scheme enabled the authors to make analysis of the linguistic material of O. Wilde’s novel “The Picture of Dorian Gray” and to compile a verbal portrait of the linguo-cultural character type “dandy” as a representative of English culture of the late 19th century. The detailed study of this portrait made is possible to present O. Wilde’s specific worldview and the image of dandy-aesthete of the late 19th century, as embodied by Lord Henry in the novel.

Thus, the goal and objectives of the research were achieved, the hypothesis was confirmed, which makes it possible to state that speech portraiture is one of the most important areas of linguistic research aimed at studying mental processes and specific features of a personality, group, ethnicity or nation, as reflected in the language. The prospect of the research is viewed in terms of further application of the proposed scheme for compilation of verbal portraits of popular linguo-cultural characters.

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Overcoming regressive processes in children's native language using subject integration

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Abstract. The article is devoted to finding out the place and role of the subject "native language" for bilingual students in the regions of the Russian Federation. The author points out the way to overcome the processes of native language regression in the conditions of teaching in the Russian language. Particular attention is paid to the issues of meta-linguistic transfer, formation of general academic skills, subject integration in the lessons of native language with history, geography and other subjects. The authors point out that native language is a cognitive growth factor and a way to develop meta-linguistic skills; therefore native language teachers have to use various forms of presentation, organise project activities, and emphasise individual and creative activities of their students. It has been pointed out that native language subjects and projects become a potential not only for linguistic but also cognitive development of a bilingual.

Keywords: meta-linguistic skills, subject integration, vitality of language, bilingual education general academic skills

1 Introduction

The issues of children's socialisation in the context of globalisation and the constant search for effective methods of language learning lead to the creation of new programs that have an impact on the learning processes in general. Today it is necessary to implement a linguistic repertoire that would allow for the formation of meta-linguistic skills in a school course. It is especially important to emphasise this aspect in order to organise learning activities of bilingual children who wish to preserve their first mother tongue in the situation of learning in another language.
The relevance of this problem is explained first of all by the fact that modern Russian society which is characterised by openness and multilingualism shows that the language barrier can cause deep contradictions. In these conditions, education, in particular overcoming regressive processes in the native language, is a means capable of forming students' meta-disciplinary competences. At the same time, it is important to note that teaching Russian as a new language in the conditions of bilingualism also fulfills such a key task as the formation of tolerant consciousness. The methodology of teaching Russian as a non-native language in the new geopolitical conditions is only being formed, based on the achievements of the theory of teaching (and education) of Russian as a foreign language. It is clear that the basic principle of teaching Russian as a non-native language remains: taking into account the specifics of the native language and native culture in the educational process is necessary, as is the preservation of the basic mental historical links of the individual with the origins of his/her nation through the national (native) language and culture.

2 Materials and Methods

The subject of the study is to identify the principles of overcoming the regressive processes in the native language in the conditions of interdisciplinary integration. In order to instill basic values of native language to the child, attention should also be paid to the process of preparing future teachers who will face the phenomenon under study in their professional activities. One of the main tasks is to form knowledge, understanding of the methodological theory of teaching Russian as a non-native language from the perspective of its basic disciplines: pedagogy, psychology, linguistics, sociology, cultural studies, as well as linguodidactics.

The aim of this research is to study general issues of methodology of teaching Russian as a foreign language, including the characteristics of bilingualism, basic concepts of teaching Russian as a foreign language, general didactic, pedagogical, psychological, linguistic, sociolinguistic and linguocultural foundations of teaching a foreign language, as well as a detailed description of language and speech aspects of oral and written communication in Russian as a foreign language, and the role of interdisciplinary integration.

We used methods of dialectical analysis to trace the logic of the process of overcoming the regressive aspects in the native language during interdisciplinary integration.

3 Results

The importance of the formation of general academic skills for the formation of a complete bilingual is confirmed by the following fact: the methodology of teaching Russian as a non-native language (as a second language) has always been aimed at the teaching of functional Russian and focused on general academic and educational outcomes5.

In order to prevent linguistic regression, native language textbooks should aim at developing general academic skills (e.g. selective reading, functional use of the grammar system in speech and communicative patterns, etc.). The whole language course for bilinguals is based on the coordination of general educational competences obtained by means of different languages and the teaching of subjects in different languages. In the Russian educational tradition it is the teaching of the native language, native literature, subjects of the regional component (history of the region, geography of the region).

Thus, it is possible to overcome the regressive processes in a student's native language by means of school subject integration. This requires an understanding of the place and role of
4 Discussion

Bilingual education is known today to be the most promising way of preserving the mother tongue in a situation of limited native language use. Many countries demonstrate interesting models of combining two or more languages in the educational space (e.g. Belgium, Kazakhstan, Canada, Finland, Switzerland). Russia is no exception, where native language is studied either as a subject or as a means of teaching other subjects. There are several models of schools in the regions of Russian Federation that organise native language instruction and teaching in a native language in different ways, implementing basic general education programmes (native language as a medium of instruction; native language as a subject). Today in many regions of Russian Federation there are also bilingual educational organisations that implement the idea of bilingual education, which is understood as a special organisation of education, when native and Russian languages serve not only as separate disciplines, but also provide study of other subjects. Both languages are used in teaching and cover either the whole learning process in certain grades or only a part of it. Bilingual models are also characteristic of regions that provide native language instruction in a subject cycle.

In addition to bilingual models, there are also supportive and intensive models in the regions of the Russian Federation, which imply instruction in the state Russian language, but which study the subject "mother language" on a voluntary basis. It is these models that are the object of our study.

Subject integration, provided in the organisation of such a school course, can become the very potential, act as a way to form meta-linguistic skills and obtain meta-disciplinary results, which most of all are aimed at the formation of cognitive and communicative qualities of a bilingual person. It can be assumed that the introduction of the subject "native language" in the national regions of Russian Federation was aimed at preserving native language as a communicative potential of the learner.

However, along with the positive process of preserving the mother tongue in the situation of correlated languages, it is the school education received in another language that causes language regression (language attrition) - the gradual replacement of the first mother tongue against the background of changes in the linguistic environment. Even as an adult, the constant use of a second language in one's daily activities leads to a simplification of syntax, a poverty of vocabulary, and even an accent may appear. These are the signs of linguistic regression, linguistic erosion, which in linguistics is called evidence of the loss of the first language (first language attrition, L1 attrition).

So how to build a mother tongue course in school practice?
It is known that the destruction of the morphological, syntactic, phonetic systems of the first language begins with the development of communicative and subject competences in the new language: gradually the penetration of terms and categories begins in the speech of people, even those who speak two languages well, both language systems compete, even a semilingualism can occur - additive bilingualism, if we speak of children, then the child has no means to express himself or herself in either language. Coordinative or even subordinate bilingualism is rare in this situation, because the balance shifts towards one of the languages that is used more often. Moreover, in the situation of passing the final examinations in the state language, the interest of students, teachers and parents as subjects of the educational process is expressed in the quality of the knowledge of the second language. Many scholars tend to see only the negative side, but we strongly believe that the proper organisation of teaching even in this situation will allow to realise the linguistic potential of each child and provide a cognitive gain. We need a new linguistic repertoire, where there is room for metalinguistic skills, because the main task of education today is to form a multilingual and
multicultural personality, oriented towards dialogue between cultures and the inclusion of cultural studies material in the content of general academic training.

In the early 1990's one of the founders of the second language learning theory, the British linguist Vivian James Cook proposed the term multi-competent for bilingual learners, as he believed that the knowledge gained in the second language influences the use of the first language, changes the spectrum and even algorithms of thinking. We use a Russian-speaking synonym for this term - general learning skills. Vivian Cooke believed that the languages a person speaks are not stored in memory separately, but affect each other. It is this position that gives us reason to assume that any language which is used as a tool for learning other subjects forms new cognitive needs in the learner and allows him/her to rethink and develop his/her ability to communicate, including in the native (first) language.

For the purposes of our paper we believe that when bilingualism has developed, the question of which language is first and which is second is decided on a case-by-case and child-by-child basis, and the priority of one or the other language may be redistributed throughout life.

We hypothesised that there are ways of successfully overcoming regressive language processes if we use the idea of subject-integrative language learning for teaching. This determined the aim of this study to describe a linguistic and pedagogical toolkit to overcome linguistic regression (attrition) in bilingual children in one of their languages, and to incorporate the potential of emotional response and cognition in the school course of learning a mother tongue. As a rule, native language teachers intuitively feel the value of such content, so they saturate lessons with texts on linguistic and cultural studies, games, folk instruments, dances and folklore themes. This is due to the content of the mother tongue course, which is often cumulative in nature, oriented towards culture-centredness and the preservation of ethno-cultural traditions.

Traditionally in the Russian Federation this is how native language education is structured, which generally keeps children interested in the language, but does not contribute to the vitality of the native language. That is why, as children and their parents grow up, they begin to perceive voluntary mother tongue lessons as a burden in preparation for various forms of final attestation and give them up. As they grow older, in a situation of time and energy constraints, emotional culture-saving lessons look unattractive. The teenagers increasingly experience a natural regression, and efforts to preserve their mother tongue become invisible.

In this situation, we see the preservation of mother tongue lessons in an educational context as a huge cognitive potential rather than another curriculum problem. It is the mother tongue that can be the key to cognitive growth and a way to build meta-linguistic skills. Teachers of mother tongues need to use a variety of forms of presentation, organise project activities, emphasise individual and creative learning activities.

The idea of subject integration is a functional approach to language teaching that allows for a wide range of educational tasks, which is why the project method is so closely linked to it. We are convinced that this method becomes the priority way for bilinguals to retain their language and that bilingualism is the key to realising the cognitive potential - meta-linguistic analysis. As the position is strengthened, the academic skills implemented through school education allow bilinguals to maintain a conscious attitude towards both languages.

We believe that methodological associations of school philologists and linguists in each educational organisation can introduce projects in two and three languages (including the studied foreign language), and the purpose of these projects is mastering new material on geography, history, chemistry, physics. The comprehensiveness of the material, working in different languages, the orientation of the projects towards the learner's own interests, will all contribute to a high cognitive background and improve the quality of terminology in different languages, the learning of the region, the interest, the improvement of public
speaking skills in each language studied and, consequently, the reduction of the rate of language attrition.

We are convinced of this by the experience of international and bilingual classes and schools around the world where the minority Russian language, studied in educational organisations for 1-2 hours per week, is preserved in the school space through the wide introduction of subject competences and research projects (Phoenix Society in Mainz, international classes in Berlin public schools, lycées with Russian IB curriculum in France, etc.).

Today, many linguistic pedagogical systems point out the difference between communicative interaction and academic learning with the aim of acquiring a second language, i.e. cognitive acquisition of an academic language - a "language of learning". Moreover, there are specific courses that emphasise academic achievement in language education. The discipline of "mother tongue" in Russian educational organisations cannot but take this aspect into account.

5 Conclusion

As a result of the analysis the authors concluded that the study of interdisciplinary integration should take into account the peculiarities of the process of reality cognition and differentiation in scientific cognition. The holistic, integrated nature of education content becomes one of the important conditions for holistic personal development. The integrated type of subject teaching meets the objectives of personality-centred education, because it helps to identify the student's attitude towards the world around him/her, which is holistic and multifaceted for him/her, dynamically. The combination of different subjects facilitates the organisation of work on the development of children's oral speech, and the multi-level coordination of the teaching material in both languages contributes to the formation of meta-disciplinary competences. In addition, the analysis of the existing curricula for the subjects of primary education, textbooks on the native and Russian languages showed that the issue of integrative links in the teaching of the native language is only occasionally reflected and requires specification, revision of the sequence of certain topics, coordination of language material, the implementation of interdisciplinary links lacks consistency, schematicity prevails. Integrated teaching at native language lessons streamlines the learning process by eliminating duplication of teaching material, allows more time to consolidate and improve what has been learned, increases students' interest in learning, and strengthens their thinking activity. The implementation of interdisciplinary lessons had a positive impact on the formation of pupils' figurative ideas about reality, and contributed to overcoming regressive processes in the native language.

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PEDAGOGICAL UNIVERSITIES AS «BLACKSMITHS OF CADRES» FOR RUSSIA'S FUTURE

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Abstract. The article deals with the peculiarities of the development of future generations of teachers in the Russian Federation. Both individual characteristics of teachers and their skills in information technology (IT), which became more important with the transition to distance learning, are highlighted. It is pointed out that the launching pad for developing such skills is a teacher training college, where future teachers undergo training and further professional retraining. The authors emphasize that high schools of education are the platform for the development of modern teacher model, responsible for preparing the rising generation for life in a modern controversial world, able to develop and evolve their mentees according to the challenges of reality. This research focuses on the representation of content in general pedagogy as well as the aspects of educator skills that are needed in the classroom. In this article, we also explore the relationship between teacher education opportunities in teacher education institutions, general pre-service pedagogical knowledge and the skills that a successful teacher needs.

Keywords: pedagogy, teacher, university, competence, education, development, formation, training.

1 Introduction

The preparation of highly qualified teachers has been extensively discussed over the last decades. The focus has been on the key issues of what can be learned from research, but as

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there is relatively little relevant research, empirical research in higher education that systematically links programme characteristics with programme outcomes is needed. The results of such research can help to inform educational policy and curriculum planning.

Teacher knowledge is increasingly a subject of research of significant interest, including as an important outcome of initial teacher education programmes. For example, in 2018, the International Association for the Evaluation of Educational Achievement (IEA) conducted the Teacher Education and Development in Mathematics Study (TEDS-M) using representative samples in 17 countries. The target group of TEDS-M was mathematics teachers in the final year of primary and secondary education. The main aim of TEDS-M was an assessment that included direct measurements of pre-service teachers' knowledge. It also collected data on learning opportunities (OTL) that the pre-service teachers had been exposed to during their training. The empirical results provided a detailed understanding of how such learning opportunities relate to the pre-service teachers' knowledge at the end of their training [14].

Although a study such as TEDS-M enriches our understanding as a single-case study, the impact on assessed knowledge is based only on cross-sectional data. There is a need for research in higher education that takes into account longitudinal assessment data and allows us to model the impact of OTL on learning outcomes in relation to pre-service teachers' knowledge [14].

2 Materials and Methods

Using the concept of learning opportunities, the starting point of this study is to investigate the structural components that have been identified as typical for teacher education and the development of certain skills of successful teachers in many countries, i.e., components related to general education research and practice (besides thematic components). Within our study, we focus on content presentation in general pedagogy as well as aspects of educator skills that are necessary for classroom practice.

Thus, in this article we explore the connection between teacher education opportunities in teacher education, general pedagogical knowledge prior to teacher training, and the skills that are necessary for a successful educator. The overall aim is to contribute to better defining the role of teacher education through the learning opportunities provided and used to develop pedagogical knowledge during the first two years of higher education for students - teachers.

3 Results

Professional development should address five areas that contribute to good learning: content, instruction, pedagogical content, knowledge of learning and development and effectiveness. For professional development to be effective, it must be [4]:
- long-term;
- consistent;
- differentiated according to the needs and realities of the teachers.

The university should facilitate the development of teachers:
- Provide teachers with the opportunity to see the intended practice and explore it.
- Help teachers plan and develop materials for use in the classroom.
- Provide teachers with practice and feedback.
- Opportunity for refinement.

But no professional development system can be effective enough to correct deficiencies in the overall quality of teachers. A strong professional development system can only exist within an education system that performs the following functions [12]:
- Focuses on recruiting, training, supporting and compensating teachers at the initial stage.
- Provides teachers with regular and effective support that directly addresses learning problems where they teach.
- Assesses teachers on a range of indicators that provide formative feedback useful for improving learning, and on a range of indicators for summative assessment of learning.

Involves teachers in the development of curricula, instruction and assessments so that they are aligned and reinforce teachers' understanding of how to achieve agreed standards.

Education is one of the leading factors in the democratisation and humanisation of society and the development of the national economy and state. In the Russian Federation today, the priority is the education of a humanistic personality, so the understanding of the profound humanisation of society must be combined, first and foremost, with the professional training of teachers. After all, the formation of the 'personality type' required by society largely depends on this.

Pedagogical research has shown that it is necessary to think over the mechanisms of implementation of the content of education for the students of pedagogical universities. A pedagogical university is characterised by multifunctionality, flexibility and diversity of training forms. The emergence and development of these aspects is explained by the new requirements for a higher level specialist, the need to upgrade the technical base of production, the transition to a market economy, the need to continue education and to consider the personality as a subject of the learning process. According to domestic and foreign political scientists, sociologists, philosophers, historians, psychologists, teachers, the personality of a student in a pedagogical university is developing and changing.

The development of the personality of a teacher-training student in different courses of study has its own peculiarities. Our observations over several years have shown the following: the first year of study is devoted to acquainting a secondary school graduate with the forms of collective life. Students' behaviour is characterised by a high degree of conformity: first-year students have no differentiated approach to their new social role as a university student. The second year is the period of the most active learning activity. All forms of learning and education enter the life of sophomores intensively. They receive general training that shapes their general cultural needs and requirements. The process of adapting to higher education is largely complete. The third year is the beginning of specialisation, increasing interest in academic work as a reflection of the further development and deepening of students' professional interests. The acute need for specialisation often leads to the narrowing of individual diverse interests. Today, the shaping of an individual's identity in higher education is determined by the specialisation factor. The first real acquaintance with the speciality takes place during the period of academic practice. Students' behaviour is rational due to the intensive search for new ways and forms of special training. Students re-evaluate many values of life and culture. In the fourth year, the perspective of graduation forms clear practical guidelines for future activities. New, increasingly valuable values emerge, related to material and family situation, place of work, etc.

The student is gradually moving away from the collective forms of life in the pedagogical university. Our analysis of developmental psychology suggests that this will allow the competent use of teaching methods in teaching university students. At the same time, we believe that the use of teaching methods should be directly derived from the theory of activity, since the method is the art of directing thoughts and disposing of activities in accordance with a certain plan and expediency. Based on the study of theoretical works, we have formulated conclusions that any activity is carried out by one method or another. Different activities, depending on their objectives, are carried out by different teaching methods. The problem of teaching methods is one of the main challenges addressed by pedagogical science and practice. It is impossible to talk about the impact of teaching methods without defining
the initial concept of "teaching method". In our study we tried to answer the following question: how is the teaching method understood in psychological and pedagogical literature?

In recent years, many interesting and in-depth studies on teaching methodology have been published. A teaching method in general is a generalised representation of a scheme of teacher-student interaction, a model of activity. Didactic method is a system of pedagogical rules and regulating principles of dialectically interconnected and interrelated activities of teacher and students, used to solve a certain range of tasks and leading to the achievement of the stated didactic goal. A method is a category of consciousness, an abstraction of a certain system of action; a system of methods carries a learning strategy, a type, an educational and pedagogical process. It seems that with all the differences in the authors' concepts presented here, what unites them is the understanding of method as an abstraction derived from a learning model, a type of learning, a direction of learning. The method of learning is considered as a generalised model of activity, which has a certain structure, a composition of components in their relations. The initial components are the learning objectives, the elements of the curriculum, and the ways of assimilating them. The research methodology is fundamentally important for us, which can be adopted for building a system of teaching methodology: for studying humanities disciplines in pedagogical universities. Considering the variety of functions and self-expression of teaching methods in the study of humanities subjects in pedagogical universities, we have developed a system of teaching methods according to the concept: method of goal setting, informational and educational method, orientation and work method, communicative method, evaluation method. The described system, in our opinion, performs not only diagnostic functions, but also successfully regulates the pedagogical process. At the same time, they have great educational and training potential.

4 Discussion

Research on the knowledge of educators has expanded over the last decade. They are based on the paradigm of expert knowledge research, which emphasises the importance of educators' professional knowledge for the successful accomplishment of tasks typical of their profession. Schulman provided important heuristics for classifying teacher knowledge components, which influenced the definition of teacher knowledge categories for teacher knowledge research. Especially in testing educators, researchers tend to distinguish between content knowledge (CK), pedagogical content knowledge (TP), pedagogical skills (TP), and general pedagogical knowledge (GP). While CK is subject-specific knowledge related to the content that teachers are expected to teach, PCK is subject-unrelated knowledge (12). EQ includes subject-specific knowledge for teaching purposes. In this paper, we will analyse the PH and PES of pre-professional teachers.

Schulman affirmed that EQ includes 'general principles and strategies for classroom management and organisation that go beyond the subject area' as well as knowledge about learners and learning, assessment and educational contexts, and goals. Educators must draw on this range of knowledge and weave it into coherent ideas and skills if they are to cope with what MacDonald called the 'wild triangle' that connects the learner, subject and teacher in the classroom. Against this background and following the concept of 'competence', a theoretical framework for EQ of educators that could be tested empirically in different countries was developed in the context of TEDS-M [13].

The framework focuses on the mastery of professional tasks and the achievement of important goals of the teaching profession. This means that the theoretical framework of FTI is task-based and clearly does not correspond to the formal structure of general pedagogy as an academic discipline. Furthermore, learning is seen as a core activity of educators serving as a heuristic for the selection of FTI themes. The results of pedagogical research and didactics have been combined to conceptualise FOS for learning. Four aspects of FOS are
considered to be very relevant. Teachers in the workplace need to have general pedagogical knowledge to take into account the heterogeneity of their learning groups in the classroom ('adaptability'), to prepare, structure and evaluate lessons ('structure'), to manage the classroom and motivate their students ('classroom management/motivation') and to assess students ('assessment'). In TEDS-M 2018, the CLA test was successfully validated through peer reviews in participating countries and through confirmatory approaches based on large-scale data from these countries. The conceptual differentiation in these four content dimensions has recently been compared to other VET test concepts: a systematic review by the OECD shows that the test developed in TEDS-M covers content that was also addressed by other approaches to VET assessment, indicating agreement on the relevance of the chosen dimensions and test topics.

The scale analysis in TEDS-M has shown that the FGS can be considered as a homogeneous structure. However, it is also possible to distinguish between the dimensions indicated by the theoretical framework. This allows researchers to report both an overall test score and several test scores for each dimension ('adaptability', 'structure', etc.). In TEDS-M, the strengths and weaknesses of different teacher education systems were assessed using scores on different dimensions. Since then, several follow-up studies have been conducted to re-apply the ZPS paper-pencil test using different samples of pre- and in-service teachers in Germany and other countries. All of these studies report good psychometric properties of the PPS test. The reliability of the overall test result is good. Consistent with assumptions about teacher experience acquisition, in-service teachers outperform pre-service teachers who are completing their initial teacher education, while they in turn outperform prospective teachers who are just beginning their initial teacher education. Nevertheless, it remains an open question whether the higher scores of teacher educators on the FTI exams are related to the learning opportunities that the student teachers encountered during their preparatory programme.

Moreover, EQ test results were analyzed as a predictor of teachers' teaching quality to provide evidence that teachers' EQ is indeed a prerequisite for classroom performance. As for the TEDS-M test, in a study of in-service teachers, their test scores were positively related to the quality of learning assessed by their students. Other studies using different testing instruments measuring pre-service teachers' EQ come up with similar predictive validity results. Moreover, evidence has been provided that the EQ of in-service teachers can serve as a predictive factor to prevent teacher burnout.

Higher education programmes that prepare students to become highly qualified teachers aim to support pre-service teachers in gaining professional knowledge for teaching. In this way, teacher education institutions provide opportunities for subject and pedagogical learning as well as opportunities for pedagogical practice in schools. Opportunities to learn (OTL) is an important concept for describing and analysing learning and development in educational contexts. Building on IEA research, OTL is central to research on the impact of teacher education on teacher learning: it serves as "an indicator of curricular variability (...) and a representation of content diversity". However, there is relatively little research into how teacher training can be related to its outcomes, also due to the lack of in-depth OTL measurement. Analysis of OTL on the basis of remote information such as the number of courses taken or the type of teaching licence has led to contradictory results. Therefore, less aggregated indicators reflecting specific characteristics of low-output teacher training are strongly recommended.

Based on this, our study uses the OTL concept. We identify two components of particular interest: the representation of content in pedagogy and aspects of pedagogical practice during higher education. The TEDS-M results showed that the content as well as the pedagogical practices affect the acquisition of the pedagogical competences of the mathematics teachers. However, as far as pedagogical learning opportunities are concerned, it was not easy to create
measurement tools that would reflect the relevant opportunities in detail. Therefore, for our survey, we developed a large number of items and scales so that we could explore the relevant learning opportunities that were available to teachers before they started.

Effective teachers are the foundation of student success, and research has shown a direct correlation between student achievement and the level of their teachers. According to research, most students score higher on tests and quizzes when they study under a highly effective teacher for three consecutive years [2]. The purpose of this study is to review and analyse what makes a teacher very effective, what pedagogical skills a teacher needs to master in order to make a significant impact on students' lives and how this is established in teacher education institution during teacher development as a specialist.

Teachers work in a wide variety of settings and with a wide variety of students. However, developing and honing certain skills is beneficial for all teachers, regardless of their environment [4,7]. By completing an online Master of Education degree or an online Master of Education degree from a university, novice teachers can learn the pedagogical skills needed to become highly effective teachers and help students reach their full potential.

It takes experience and training to develop the teaching skills necessary to inspire and support students to develop [5]. The university offers degrees in education that prepare teachers for success in their important work. By equipping teachers with the latest research and expert-led training, graduates complete their coursework ready to tackle challenges in the class.

5 Conclusion

In education we are often quite good at identifying and analysing the problems associated with poor teaching. However, we are much less adept at identifying the factors that contribute to good teaching and implementing systems that develop the skills needed to be good teachers. Consequently, a consensus needs to be reached on what constitutes good teaching so that we can establish practices that support the cultivation of factors that contribute to good teaching.

Teaching involves an extremely complex set of practices. Teacher education should provide a comprehensive education for future teachers so that teachers know the content, are fluent in multiple instructional approaches, know how to impart knowledge to students through a variety of activities and experiences, understand how students learn, and have a value system based on the belief that all children can learn. Every year they should be educators, counsellors, parents, social workers, educators and mentors to hundreds of children who come into classrooms with different personalities, learning styles, socio-economic backgrounds, family situations, tribal affiliations, religions, castes, classes, abilities/limitations and life experiences. Creating an effective distance education system, and indeed any system of pre- and in-service teacher education, means imparting and cultivating this set of knowledge, skills and beliefs in those who are and those who want to be. It also means immersing pre-service teachers in a high-quality learning experience with instructors who themselves embody the characteristics of good teaching.

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This work was carried out within the framework of the implementation of State Assignment
In education we are often quite good at identifying and analysing the problems associated with teaching. It takes experience and training to develop the teaching abilities/limitations and life experiences. Creating an effective distance education system, means imparting and supporting students to develop 

The university offers degrees in education that prepare student teachers to become highly effective teachers and help students reach their full potential. To do this, teachers need to become experts in their field. Teachers work in a wide variety of settings and with a wide variety of students. However, they all want the same thing: to help students learn. Effective teachers are the foundation of student success, and research has shown a direct correlation between effective teaching and student achievement. It is therefore important for teachers to have a comprehensive education that includes content knowledge, pedagogical skills, and the ability to adapt to the different personalities, learning styles, socio-economic backgrounds, and needs of the children who come into classrooms.

Teaching involves an extremely complex set of practices. Teacher education should be dedicated to cultivating this set of knowledge, skills and beliefs in those who are and those who want to become educators, counsellors, parents, social workers, and mentors to hundreds of children who come into classrooms with different personalities, learning styles, socio-economic backgrounds, and needs. Providing a comprehensive education for future teachers so that teachers know the content, are fluent in multiple instructional approaches, and know how to impart knowledge to students is needed to become highly effective teachers and help students reach their full potential. The purpose of this study is to reveal what makes a teacher effective and how this is established in the class.

Effective teachers are the foundation of student success, and research has shown a direct correlation between effective teaching and student achievement. It is therefore important for teachers to have a comprehensive education that includes content knowledge, pedagogical skills, and the ability to adapt to the different personalities, learning styles, socio-economic backgrounds, and needs of the children who come into classrooms.

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The essence of corpus linguistics and the use of parallel text corpora in teaching machine translation

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Abstract. The article is concerned with the issue of the essence and use of the technology of constructing text corpora as an optimizing means for the automated translation process and teaching translation. The purpose of this article is to study the principles of structural construction and linguistic organization of text corpora, as well as to study the features of their use as a means of methodological and didactic support for classroom and independent work of students in the field of translation. The practical task of the study is to analyze the main forms of teaching translation based on parallel text corpora with examples of the use of language material presented on the portals of contextual search systems www.linguee.ru and www.context.reverso.net. The subject of the study is the structural and linguistic features of ordered text arrays, as well as methods of their applied use, which contribute to the study of translation aspects. The study was carried out on the basis of the method of contextual analysis of language units, as well as comparative and contrastive methods. The application of these methods is due to the need for an objective analysis of the word usage of language units in the natural language environment, as well as the widespread use of electronic means of helping a person in the process of translating texts on various topics. The scientific novelty of the work is due to the fact that it attempts to comprehensively study the technology of parallel text corpora, as well as the types of its practical application in teaching students to translate.

Keywords: corpus linguistics, text corpus, intercultural relations, text alignment

1 Introduction

One of the most important problems noted in the process of translating texts from one language to another is the lack of adequate visual aids. In this area, corpus linguistic methods, data-based translation training and text search in large-scale parallel corpora using natural language processing methods can provide significant assistance.

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The concept of “text corpus”, based on which corpus linguistics develops, is increasingly included in the scientific circulation of specialists in the field of linguistics and computer translation. A corpus is recognized as a set of texts selected and processed according to certain rules, used as a basis for language learning. It is used for statistical analysis and testing of statistical hypotheses, as well as validation of linguistic rules in a given language. Main characteristics of the text corpus include: 1) electronic; 2) representative (capable of qualitatively representing the object being modeled); 3) marked up (different from the usual collection of texts); 4) pragmatically oriented (created for a specific functional and pragmatic task) [1, 2].

A number of researchers note the particular relevance of using text corpora in the process of bilateral translation. For example, the study L.N. Belyaeva is focused on the applied aspects of corpus linguistics, and in her opinion, one of such aspects could be the creation of automated lexicographic systems necessary for the work of translators [3]. V.N. Shevchuk notes that the use of text corpus technology makes it possible to improve the quality of written translation and give a complete picture of all types of norms (lexical, grammatical, syntactic, stylistic, spelling and punctuation) in force in the modern language [4]. Moreover, text corpora plays crucial role in solving numerous linguistic and extralinguistic problems that arise in the translation process.

The purpose hereof is to consider the principles of structural construction and linguistic organization of text corpora, as well as to study the features of their use as a means of methodological and didactic support for classroom and independent work of students in the field of translation. The practical task of the study is to analyze the main forms of teaching translation based on parallel text corpora with examples of the use of language material presented on the portals of contextual search systems www.linguee.ru and www.context.reverso.net. The subject of the study is the main structural and linguistic features of text corpora, as well as the features of their formation and design.

2 Materials and methods

The research material includes Russian and English text fragments presented in the corresponding corpora on the electronic portals www.linguee.ru and www.context.reverso.net. The work uses comparative and contrastive methods, as well as the method of contextual analysis of language units. The rationale for using these methods is the fact that they are empirical, analyze real word usage in a natural language environment, use a fairly large representative selection of texts, actively use computers and special concordance programs for analysis in automatic and interactive modes of operation, and are based on methods of statistical and qualitative analysis of the text.

3 Discussion

Consider the issue of the structure and role of the technology of parallel text corpora in the process of teaching translation using automated tools.

According to their structure, text corpora are divided into monolingual, bilingual and multilingual. The multilingual text corpus consists of several monolingual corpora similar in structure. Moreover, diachronic corpora, which are composed of texts in an earlier form of the language and their translations into the modern language, as well as transcriptional corpora of texts, including texts in the literary language read by speakers of its different dialects, can also be referred to parallel corpora. The importance of parallel corpora is due to the fact that they provide an opportunity to objectively establish the way chosen by translators to overcome difficulties in practice and use this data to develop models for
novice translators that correspond to reality. They also play an important role in the study of the translation norm in specific socio-cultural and historical contexts. This property makes multilingual parallel corpora of texts attractive for practicing translators in many respects.

The structural organization of a text corpus can be very diverse, which is determined by the pragmatic tasks of its compiler or user. The most common options include: traditional text with a link to the translation; tabular “mirror” form, convenient for perception and comparison; database (structure applicable only for automatic processing).

One of the most important conditions for creating a full-fledged text corpus is text alignment. The need for this operation is due to two factors. Primarily, there is no linear correspondence at the word level between the original text and the translation, because there are at least differences in grammatical structure, differences in idiomatics, lexical ambiguity in any pair of languages. Secondly, the translator does not always choose the most literal version of the translation. In particular, two (and sometimes more) sentences of the translation can correspond to one sentence of the original and vice versa. Finally, the inevitable fact is the inaccuracies of the translation, among which the omissions are the most significant for the purposes of this study. Thus, the alignment of parallel texts is the basis of any work related to their statistical analysis.

It should be noted that the presence of an array of texts is not sufficient and the only condition for solving various problems in the field of text linguistics and translation. A comprehensive analysis of textual material necessarily requires the presence of additional linguistic and extralinguistic information in the texts. This led to the need for proper structuring of the corpus of texts, which found its expression in the idea of a marked-up corpus. The idea of tagging is that text units and their components receive special labels, so that the specialist has the opportunity to get a complete picture of the properties of this text and the required prior knowledge. Analysis of works in the field of structural organization of the text corpus (A.M. Amiev, I.M. Boguslavsky) allows us to conclude that linguistic tagging includes the following varieties [5-8]:

- **morphological or part-of-speech tagging.** This type of tagging serves to indicate the signs of parts of speech, as well as their grammatical categories;
- **syntactic tagging** as a result of syntactic analysis, or parsing (syntactic analysis) based on morphological analysis data. This type of tagging serves to describe the syntactic links between lexical units, that is, the surface syntactic structure of a sentence, and various syntactic constructions (for example, a subordinate clause, a verb phrase, etc.);
- **semantic tagging**, which serves to designate semantic categories, which include specific language units, as well as their more specific varieties.
- **anaphoric tagging**, which is a marker of referential (for example, pronominal) connections in this sentence;
- **prosodic tagging** containing stress and intonation markers. This type of tagging is often accompanied by the so-called discourse tagging, which serves to indicate pauses, repetitions, etc.

Prior to turning to the question of the nature and types of use of the corpus methodology in teaching professionally oriented translation, we note that the corpus of parallel texts has a number of characteristic didactic properties that determine the methodology for the formation of professionally oriented translation competence of students [9-12]. Such properties, according to many scientists, are the multilingual structure, contextuality of search results, as well as the possibility of limiting the scope of the language.

Based on the method of using a corpus of parallel texts, it seems possible to single out the following forms of teaching translation (as an electronic resource, you can use the contextual search systems for translations Linguee and Reverso):
- tasks for the translation of professional terms in the corpus of parallel texts. This form of classroom work involves the choice of the correct semantic equivalent or occasional translation option for the original term, determined by the content of the text and its belonging to a particular field of knowledge. For example: 1. It shall be possible to fasten the device in no more than one action. – Должна обеспечиваться возможность закрепления приспособления одним простым движением; 2. Regulations will be formulated on benefit sharing between the creators and the users of scientific and technological achievements (scientists, entrepreneurs and service providers) so as to fasten the link between scientists’ responsibility and the products of their scientific and technological research – Будут подготовлены правила, регулирующие совместное использование выгод теми, кто обеспечил научно-технические достижения, и их пользователями (ученых, предпринимателей и поставщиков услуг), с тем чтобы закрепить взаимосвязь между деятельностью ученых и результатами их научно-технических исследований; 3. Please return to your seats and fasten your seatbelts – Пожалуйста, вернитесь на свои места и пристегните ремни безопасности [13-15].

This example shows that the presence of the semes “прикрепление” and “прочность” in the structure of the meaning of the term fasten allows the use of various occasional variants in translation, which are determined by the contextual environment of the specified term (for example, in the first and third cases, the context indicates the mechanism of action of the object that serves fixation tool, and in the second – to enhance the properties of the ongoing process, leading to a positive result). Knowledge of the semantic structure of the term, obtained on the basis of the study of comparative data of the text corpus, as well as an idea of the subject matter of the translated text, allows students to choose a specific translation option for this term, fixing it in memory for subsequent use in similar translation situations.

- tasks to determine translation differences between terms that are close in meaning (for example, strength and force, profit and benefit, removal and withdrawal, etc.). These tasks are performed using the methods of contextual analysis and search for concordances. For example: 1. Some highlighted the removal of trade distorting agricultural subsidies as a priority. – Некоторые обозначили устранение приводящих к отклонениям в торговле сельскохозяйственных субсидий в качестве одного из основных приоритетных направлений деятельности; 2. Member States had been withdrawing or considering their withdrawal. – Государства-члены выходили или рассматривали вопрос о выходе из состава Организации [13-15].

In the process of completing this task, students determine the range of compatibility of terms that are close in meaning and, on the basis of contextual analysis, reveal the semantic difference between the terms (in this example, removal implements in its semantic structure the idea of eliminating a problem or removing a negative factor, and withdrawal implements the idea of ending participation in work any organization or activity).

- tasks to determine the differences between occasional translations of the same professional terms (for example, “компания” – company, firm, partnership, society and a number of other options).

The performance of this type of tasks is also associated with the use of the concordance method based on the students’ background knowledge on the relevant professional topics.

- tasks for the correct use of grammatical tenses. As part of this task, students study concordance data and formulate the rules for the formation and use of certain tenses in a foreign language. At the same time, the teacher selects the necessary examples in advance and highlights the necessary parts of speech, or parts of the sentence that facilitate the task. For example:

I am speaking over the telephone. – Я разговариваю по телефону.
She is watching TV now. – Она сейчас смотрит телевизор.
They are walking down the street. – Они спускаются по улице.
She’s working now. – Она сейчас работает.
We’re cleaning the house. – Мы убираем в доме.

4 Conclusion

The methods of parallel text corpora are a highly effective innovative addition to traditional scientific and educational technologies in the field of language theory and translation studies. These methods combine such aspects as authenticity, representativeness, the possibility of independent work of students. The creation of a text corpus is considered as a sequence of stages, including both the actual language operations and the stages associated with the technical support for the analysis of textual material. The value of a text corpus is determined not only by the diverse linguistic content of the presented text information, but also by the convenience of its structural and visual presentation (for example, the Linguee corpus has a built-in property of graphical highlighting of analyzed parallel text fragments).

The tools of text corpora and contextual search systems make it possible not only to record the features of the use of certain language units in the text, but also to obtain comprehensive information about the content and formal features of the texts themselves, their genre affiliation and stylistic reference. In the applied aspect, text corpora are the most important means of teaching professionally oriented translation, providing the opportunity to develop a number of tasks aimed at developing the students’ skills in lexical analysis of perceived information and its translation into a foreign language.

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New generation masterclasses: modernising classical formats for training future teachers

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Abstract. The article offers a comprehensive and innovative step-by-step algorithm for working with students of pedagogical universities. It is based on conducting master classes of a new generation, which contribute to the development of pedagogical competencies of future teachers, the development of their flexible competencies (soft skills) and the development of a number of more special skills and abilities.

The main idea of the article is that a master class cannot be a single educational event, but can turn into a full-fledged individual training course for future specialists. A new generation master class is not a short public demonstration of their experience, but an effective way to test available knowledge and immerse themselves in pedagogical practice. In addition, it helps to increase students' interest in education and self-education, ensures the dissemination of advanced pedagogical ideas, creates a more positive and modern image of a young teacher.

The article summarizes the experience of the Pedagogical Workshop of ChSPU, describes in detail the special features of each stage of interaction with students, offers various options for their implementation. In general, the presented mechanism of interaction may be relevant for students of not only pedagogical, but also other specialties.

Keywords: master class, pedagogical workshop, professional development, soft skills, pedagogical university, general education school, innovations in education.

1 Introduction

Government and society are setting more and more ambitious goals for the educational community. Never before has the state invested so much money into the education system implementing (within the framework of the national Education Project) a multitude of federal and regional programmes - from the overhaul of thousands of rural
implementing (within the framework of the national Education Project) a multitude of federal and regional programmes - from the overhaul of thousands of rural schools and the large-scale construction of new educational institutions to the creation of educational technoparks and hundreds and hundreds of 'points of growth'. Russia announcing 2023 as the Year of the Teacher, to coincide with the 200th anniversary of the great Russian educator K.D. Ushinsky, can be considered a symbolic confirmation of the importance of education.

According to major sociological studies [14], in 2019 only 52% of Russians were completely or partly satisfied with the quality of their children's school preparation, and 51% of respondents believed that the situation in education had deteriorated in the last 5-10 years. Unfortunately, only 17% (about one in six) noticed positive trends. Another survey carried out in 2021 showed that only 31% rated the education system as "good" or "excellent", while the majority 62% described domestic education as mediocre, poor or very poor [13].

All this, as well as Russia's not-so-high scores in international comparative PISA surveys, convinces us that the domestic school system, to put it mildly, is in a process of permanent 'transformation'.

To paraphrase an old school idea, all technology, new buildings, textbooks and other changes big and small will have no effect unless the ideas behind them go 'through every teacher's head'.

It has become almost commonplace to criticise, on the one hand, teacher training institutes that train the "wrong" teachers and, on the other hand, educational development institutes that train them "the wrong way" and teach them "the wrong" way and not what is really "necessary". This might be an argument, but it is difficult to deny the gap that exists between the young professionals being trained today in pedagogical colleges and the teachers that today's schools and children need. Especially in the context of the demands on teachers in the 21st century which continue to expand and become more complex.

2 Materials and Methods

The modern world, digital reality and educational trends dictate the urgent need to transform the process of future teacher training. Today there is an awareness of the problem of teacher training both at the state level, and by the future teachers themselves. The parent community of students, i.e. the subjects of the educational process, are waiting for the content and structure trajectories of future specialist to improve. One of the components of professional pedagogical skill is the attitude towards the content of competence and the object of its application - children, which determines the value-oriented structure of a child's personality for a future teacher. Besides, personality-forming capabilities, creativity, and the personal example of a teacher have a huge potential to influence the formation and development of cognitive, emotional-volitional and behavioural spheres of students. In connection with the above-mentioned, the problem investigated in this paper is related to the search and implementation of various technologies allowing to form additional competences in future teachers. One of such innovative forms of work with students is Alikhan Dinaev's pedagogical master class, which forms the basis of the Chechen State Pedagogical University. The aim of this article is to analyse the master classes as modern interactive forms of knowledge transfer and the dissemination of advanced pedagogical experience.

3 Results
The Teacher Training Master class by Alikhan Dinaev, established at the Chechen State Pedagogical University in 2020, is in a broad sense an attempt to bridge the gap between the theoretical, subject-specific training of students and their practice-orientation, as well as to promote the graduation of teachers who will be as prepared and adapted to work in their new schools as possible.

The work of the ChSPU Pedagogical Master class is based on the approach that students are the main actors of all practical activities. This means that students do not just participate in activities, but organise and lead them themselves under the guidance of experienced teachers.

4 Discussion

One of the most successfully proven methods of teaching a class is the master class. In scientific literature, this topic is given much less attention than other pedagogical technologies. Therefore, there are relatively few scientific articles describing its features, methods of implementation, basic elements, its role in the educational process and in the professional development of teachers, and in general, articles describing the concept and content of the master class itself.

Most specialists (G.A. Romitsyna, E.A. Latypova, etc.) consider the master class as a modern learning technology that is used to train professionals of different professions, including, of course, teachers [8, p. 130-131]. Other researchers (T.V. Perevalova, for example) note that the master class is a modern dissemination of the best pedagogical experience [7, p. 287]. Other researchers (E.P. Shabalin, for example) add that the master class is an interactive form of teaching pupils, students and teachers (broadly speaking, teaching anyone) [10, p. 165].

A.N. Ioffe, doctor of Pedagogical Sciences, gives a comprehensive definition of this concept. In his opinion, a master class "is an educational event based on an interactive presentation of original examples of best teaching practices involving participants in activities, motivating professional development and arousing interest, creating a space for the discussion and discovery of new knowledge through communication with a recognized authority in pedagogy" [6].

In this context, it is interesting that master classes as a competitive test have been held within the framework of the All-Russian Professional Mastery Competition "Teacher of the Year " since 2004. One of its initiators, the winner of the competition in 1992, A.V. Zaruba (candidate of pedagogical sciences) notes that "a master class is a concentrated expression of a topic in its subject area, in the educational system, in a multicultural space" [5]. He adds that a master class is "almost always a theatrical-pedagogical act on stage, in which school children (students, teachers) together with a teacher discover complex aspects of the phenomenon under study" [5].

In the regulation on the competition "Teacher of the Year 2021" the format of the master class is defined as "a speech demonstrating the methods of professional activity, which have proven their effectiveness in the practical work of the contestant", and its purpose is "the demonstration of the professional skills of the winners through their presentation and translation of innovative teaching experience during professional interaction" [14].

The master class is traditionally considered one of the most difficult types of public speaking. Another difficulty for teachers is that it is an unfamiliar format. Many teachers may have 30 years experience without ever having conducted a single master class. At the same time, a master class is rightly called one of the most effective forms of interaction with the audience, a kind of quintessence of pedagogical skill.
The problem with the classical master class is that it usually has no continuation - neither for the speaker, nor (especially) for the audience. A master class can certainly leave some sort of after effects for the audience and stimulate interest in the topic presented, but usually the de facto impact often ends after the master class, especially if other speakers follow.

In the pedagogical master class, we believe it by no means ends on the stage where it was presented. On the contrary, perhaps the most important and valuable part starts after the applause has fallen silent (assuming an optimistic scenario).

The algorithm of interaction between the mentors of the ChSPU Pedagogical Master class and the students to accompany them in the preparation of the master class, its public presentation and further work with its content is as follows:

The first stage is the selection of the topic - the definition of the topic of the presentation. As a rule, students who wish to conduct a master class cannot formulate the topic of their presentation themselves, or have a very general idea of it.

The following techniques and tools can help to select a topic:
- brainstorming by students and staff of the pedagogical master class;
- conducting a master class based on the ideas of a book by a well-known and reputable expert in the field of education, pedagogy, psychology, self-development, soft skills;
- viewing the themes of master classes and lectures by famous speakers at a TED conference or participants in the Teacher of the Year competition, etc.;

After defining the topic, discussing the basic elements of its content and deadlines, the student prepares an outline and a first draft of the text and presentation of the presentation on his/her own. For this purpose, mentors help student with the selection of scientific, popular science literature, links to articles and videos on this or a related topic.

The most important element in preparing for the public presentation is the so-called pre-master class, which is very similar in its essence to an interaction with a focus group. It is a kind of "private screening" of the draft master class in front of a small audience consisting of the staff of the pedagogical master class and (it is an obligatory point) a few classmates (friends) of the student.

At this stage, the initial psychological attitude is very important - we explicitly tell the student that this is only a rehearsal, which allows for mistakes and failures. Moreover, these mistakes are probably even necessary and will be extremely useful during the master class proper. We create a favourable psychological atmosphere that is tolerant of mistakes.

Moreover, the pre-master class is as interactive as possible. The audience is not just listening to the speaker; there is a constant dialogue between us - questions, suggestions, corrections, improvements, and a discussion of various aspects of the presentation. Moreover, the speaker's classmates are also obliged to give feedback.

In order to avoid possible difficulties in the evaluation process, we offer (as an option) a small checklist for evaluating the presentation, which contains the following elements:
- 3 things you liked most;
- 3 things you could do better;
- Rate the aesthetics of the presentation on a 10-point scale;
- What was not clear to you?
- What is the best idea of the presentation?

This "formative", continuous evaluation is in this case more effective than a "summative" evaluation, where general assessments, advice and comments are expressed after the performance.

In this case, one can draw on the seminal research of the famous Swedish scientist, the neurophysiologist Anders Ericsson. His research (later popularized by journalist Malcolm
Gladwell and called "the rule of 10 thousand hours") shows that significant success in any business requires more than just years of hard work [14, p. 696-698]. Thousands of hours of training in any field can be useless without "thoughtful practice" and constant feedback from the teacher (coach, mentor).

In his books he stresses the importance of immediate feedback, that is, immediate correction of an erroneous action (this could be in any area - playing the piano, shooting a ball into the ring, public speaking) [13].

The scientific research conducted by A. Ericsson as well as the high results of our students allow us to conclude that such a pre-master class format is really necessary and useful.

It should be noted that a pre-master class (taking into account all suggestions and comments) can be held one or two more times at the request of the student or mentor, including on the day of the main public presentation.

A preliminary presentation in front of a small and as friendly an audience as possible can noticeably reduce the fear and anxiety before the main master class, so that the pre-masterclass fulfills a compensatory function as well.

The announcement and media promotion phase of an educational event can be considered as a cross-cutting one in fact, it starts from the moment the date of the performance is set and continues even after its completion.

Conducting a master class always implies a vivid information campaign in order to attract not only students, but also current teachers and professors and all interested parties. This is done both through student mailing and posters on the walls of the teacher training college, as well as through the publication of invitational materials in a bright and modern design on social media (an example of one of these is shown in Figure 1).

Figure 1. Example of visual material for a master classe announcement
More effective and creative techniques can also be used to attract additional attention. For example, preparing a small quest whose elements (QR codes) can appear in classrooms, corridors or even outside the university. And finding the answers to the put questions leads its participants to the information about where, when and on what topic the master class will be held.

Another well-established method is to record a video in which the prospective speaker invites everyone to attend the master class, briefly explains the importance of the topic and talks about what the audience can learn from his or her presentation. The video can also contain mini interviews with professors, a survey of students which demonstrates the importance of the topic of the master class.

In this case, active cooperation with the university press office and the student media group allows for the dissemination of information about the upcoming event and it significantly increases interest.

It is important to note that in promoting the event, we take an entrepreneurial approach. In essence, the organisers see the master class as a kind of commercial educational event, such as a paid training by a well-known coach, whose success depends on the number of people who pay for the class and come to it. Therefore, master classes of ChSPU, which, of course, are completely free and open to all, tend to arouse the interest of a wide audience. And such attitudes, among other things, also force the speakers to do their best to expand the audience of their presentations, to "sell tickets" for it and to "maximise profit".

Conducting a master class is undoubtedly the main, but by no means the last, point in the described algorithm for working with students. This stage is the most clear and familiar in its content, so for the purposes of this article it is hardly necessary to go into more detail.

Another important thing is the obligatory discussion of the master class results with the speakers, analysis of its positive and negative aspects, students' self-assessment and reflection. Moreover, the format of the work involves both a "hitting the iron while it's red analysis, i.e. immediately after the performance, and subsequent analysis, including the viewing of a video recording of the master class.

The next important step is the design of the lesson according to the presented methodology. Pedagogical master classes are usually based on one or more pedagogical techniques, methods, a particular educational technology, etc. After the master class is over, working on its ideas continues.

Among the most important principles of the pedagogical master class are the practice-oriented nature of the work and the focus on shaping the knowledge, skills, abilities and competences needed in pedagogical work. The overall aim is to facilitate the practical acquisition of theoretical knowledge and skills.

For this purpose, the student and the tutor work together on a plan (flowchart) for a lesson in a comprehensive school, which, of course, assumes the mastery of some subject matter, but also includes the methods and techniques proposed during the master class.

For example, if the master class was dedicated to the use of the Quizizz application, then the 10th grade social studies lesson on the topic "The State Budget" is accompanied by Quizizz intellectual quizzes at the stages of material actualisation and initial consolidation of the new material and ends with a Quizizz poll for reflection.

The next stage is the testing of the prepared lesson project in the classroom with the students. Typically, the pedagogical master class is an internship in which the student (who conducted the master class) leads a lesson with his or her classmates or a group of younger students.

Importantly, university professors are invited to attend such sessions and provide the student teacher with feedback. The collaborative analysis of the lesson allows the student
teacher to adjust the content of the lesson, taking into account the physiological, psychological, and other characteristics of the children in the class.

The testing of the knowledge and skills gained during the master class and the first lesson continues in the classroom. In consultation with the school administration, the teachers and resource persons are invited to the lesson, and they discuss the results with the student after the lesson is over. This is particularly important because it gives the student the opportunity for additional (sometimes first) pedagogical practice.

After the master class, a short video is recorded in which the speaker talks about its main ideas (or elaborates on one main idea). In addition, the recording usually involves two formats - an ultra-short video (up to one minute to be published on social media) and a 3-5 minute video revealing the content of the presentation in more detail (to be uploaded to a video hosting service).

The many positive effects of this stage cannot be overlooked:
- Developing students' public speaking skills as one of the most important soft skills;
- preservation and dissemination of the best pedagogical and other ideas;
- creation of a databank of the best pedagogical practices;
- Enhancing the prestige of the teaching profession and the teaching university;
- increasing students' involvement in the pedagogical master class and interest in self-development and learning, etc.

The final stage consists of creating and publishing educational content. At this stage the student, together with the pedagogical master class specialists, prepare visual educational content with the main points of his/her master class in the form of infographics, checklists, posters, worksheets, mini-presentations, etc. The created content is published on the Pedagogical master class channel, Telegram, VKontakte and Instagram.

This stage not only allows us to disseminate our experiences and best ideas, but also facilitates students' mastery of modern websites, image manipulation programmes and applications, graphic design, etc., another versatile skill that will be useful in professional activities for a future specialist in any field.

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**THE ALGORITHM OF WORKING WITH STUDENTS**

1. SELECTION OF THE THEME
2. PREPARATION FOR THE MASTER CLASS
3. PRELIMINARY PERFORMANCE
4. ANNOUNCEMENT AND MEDIA PROMOTION OF THE EDUCATIONAL EVENT
5. CONDUCTING A MASTER CLASS AND DISCUSSING IT

6. DESIGN OF THE LESSON ACCORDING TO THE PRESENTED METHOD
7. CONDUCTING A LESSON AT THE UNIVERSITY
8. CONDUCTING A LESSON IN A SCHOOL
9. CREATION VIDEO CONTENT
10. CREATION AND PUBLICATION A GRAPHIC EDUCATIONAL CONTENT

PEDAGOGICAL WORKSHOP OF ALIKHAN DINAEV / CHSPU
Figure 2. Algorithm of interaction between the mentors of the ChSPU Pedagogical Master classe and students to accompany them in the preparation of the master class, its public presentation and further work with its content.

In this way, the master class is transformed from a single event into an active and comprehensive pedagogical practice, an individual course for improving pedagogical skills and developing flexible competencies.

The master classes held in Alikhan Dinaev's pedagogical courses at the ChSPU go far beyond its classical format, broadening and deepening it, providing comprehensive additional training for future teachers and encouraging them to engage in self-education.

5 Conclusion

The proposed mechanism of working with students (see Figure 2), in the authors' opinion, can be successfully used in any pedagogical higher education institution in the country. Theoretically, it could become a part of the educational programme at universities, similar to the individual project at school. What would this look like? All students, apart from basic and elective courses, have an additional "Master Class" course (either compulsory or elective. During the semester, the student's task is to prepare, under the guidance of an academic supervisor, a master class that includes all (or most) of the steps described in this article. And presenting their master classes could be part of a vibrant pedagogical forum or festival organised by the Pedagogical University in cooperation with regional executive authorities and municipal bodies responsible for the management functions in the field of education.

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Watching video recordings of lessons for training of future teachers

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Abstract. The paper presents the experience of the Pedagogical Workshop of Chechen State Pedagogical University on the introduction of an innovative method for the training of future teachers. It is based on watching the lessons of the best teachers of the country, which involves full work with the lesson as with a valuable pedagogical material rather than the passive perception of what is happening on the screen with its subsequent discussion. The essence of the process is to pre-prepare a variety of tasks and exercises to further apply active and interactive methods of engagement with the content and format of the lesson, etc. The author proposes a consistent algorithm for implementing this approach, which allows significantly increasing the involvement of students and contributing to the development of their subject matter knowledge, methodological literacy and flexible (soft) skills (competencies). The author relies on the practice of implementing a new format of education at a pedagogical university and assessment of its quality, which is regularly conducted among the students participating in it. The first results of testing and implementing this format show its high efficiency, as well as the possibility of replication in other pedagogical universities of the country. Besides, the method can be used at schools for advanced studies and centers for continuous improvement of pedagogical skills at professional development courses for practicing teachers.

Keywords: pedagogical workshop, video recordings of lessons, professional development courses for teachers, soft skills, pedagogical universities

1 Introduction

The search for more effective forms, methods and technologies of teaching children, training students of pedagogical universities and professional development of practicing teachers requires the revision of the traditional format of organizing educational activities.

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The use of information and communication technologies in the educational space allowed teachers using such a format of learning activity as watching the recording of teachers’ lessons. In the work (Fakeeva, Shanina & Zakharova, 2020), the authors, who are practicing teachers, highlight the problem of using various video materials in lessons with students at general education institutions or (less often) at higher educational institutions. Video becomes the main format of content in any field, including educational. As emphasized in the annual Cisco Annual Internet Report (2018-2023), by 2023 more than 80% of global data traffic will be presented in video format, which indicates its effectiveness in studying various disciplines.

The importance of using the video format, in particular, watching lessons in classes on the methods of teaching certain subjects, has been discussed in the domestic psychological and pedagogical discourse for the past twenty years. Thus, back in 2003 V.A. Shchenev wrote that one of the conditions for the success of the training of a modern teacher can be the demonstration of examples of high creative pedagogical work, and for this it is necessary to “use video recordings of lessons and other forms of organizing the educational process” (Shchenev, 2003, p. 2).

However, despite the importance of using the technology of watching the lessons of the winners of various competitions of pedagogical excellence, innovative teachers, there are currently not enough works analyzing this format of training, which emphasizes the relevance of this study. At the same time, the experience of one of the authors shows that such a format of classes with a mandatory subsequent discussion or homework presented as a written analysis is quite effective. Moreover, experts insist that it is also necessary for teachers to watch their own lessons (individually or together with methodologists and teaching staff members). Bill Gates, a well-known businessman and philanthropist, whose charitable foundation pays great attention to the problems of education around the world, devoted one of his rare public speeches to the topic of the importance of feedback to teachers, and among the main ways to ensure this was video recording of lessons with their subsequent analysis (Gates, 2021).

Based on the above, this paper presents a new approach to watching video lessons for the training of future and practicing teachers, which is successfully applied within the Pedagogical Workshop at Chechen State Pedagogical University (CSPU).

2 Materials and Methods

The methodological basis of this study is a comprehensive analysis of pedagogical literature on the problems of using video lessons to form and develop professional competence of students in the educational space of a pedagogical university. The methodology of training, preparing a specialist at a university for professional activity and flexible socialization should correspond to the challenges and trends of our time. This is what determines our theoretical and methodological position focused on the formation of a versatile developed personality capable of self-development and perception of the innovative worldview. The problems of our study are set by the most important general methodological approaches to higher education. The combination of a systemic, institutional and community approach allowed conducting a comprehensive analysis of the problem under consideration. The study of the flexible introduction of various teaching methods into the system of higher education allows building a logical chain between the elements of the system, analyzing their relationships, interdependencies, and identifying not only objective, but also subjective characteristics of the considered phenomenon.
The typological analysis methodology made it possible to identify the essential characteristics of the efficiency of perception and assimilation of video material by students, to analyze the disadvantages and advantages of video lessons as a learning method. A significant part of the materials contains the results tested at international and all-Russian conferences, forums

3 Results

It is known that one of the features of a modern man is the decrease in the ability to concentrate. The inability to focus on one thing for a relatively long time is a hallmark of the current generation of children and adults, which is only amplified by massive exposure to informational stimuli (triggers) in the form of messages, notifications from smartphones and tablets.

As a result, people are increasingly striving to be both online and in the real world. A typical phenomenon was the situation when a person watches TV, but at the same time uses the phone almost all the time – updates social networks, writes messages, reads comments, watches videos, etc. Such phenomenon is often called double screening.

The famous British specialist Linda Stone in her works introduced the term “constant partial attention”, which implies an attempt not to miss anything and be “online” and “offline” at the same time. L. Stone defines this concept as the desire to cope with everything, while in fact a person does not fully focus on anything. The total number of interactions becomes so large that an individual is not able to focus on each of these interactions separately (Ferat, 2013). The result of this is a decrease in cognitive abilities, primarily a deterioration of memorizing and attention, which artificially provokes the symptoms of the attention deficit hyperactivity disorder (ADHD) (Astashkova & Artemenko, 2019, pp. 62-63).

Hence, it should be noted that the traditional format of using video lessons, their passive watching, is insufficient as a mechanism for influencing the cognitive sphere of a student, in particular, the perception. Passive perception of what is happening on the screen does not contribute to a deep understanding and especially to the mastery of pedagogical techniques, means and technologies. A lesson, however interesting and even exciting, is not able to ensure a continuous and high level of student engagement.

All this leads to an important conclusion – children and students cannot fully focus even on the works of mass culture, despite the fact that they are created over many months, and sometimes years by the best directors, screenwriters, actors and other artists, use numerous and expensive special effects and are widely advertised. Therefore, we cannot have the illusions that students will be focused on perceiving and analyzing the video recording of the lesson for 45 minutes without interruption.

Besides, lessons are often recorded in low resolution, with poor sound quality. There may also be problems when watching such videos at universities or colleges, the material and technical resources of which also do not always meet the latest standards.

A survey conducted by one of the authors of this work among students of several pedagogical universities involving about 80 third-year students of different specialties showed that most of them (58% – 46 respondents) never experienced such a format of study as watching school lesson records. 24 people (30%) noted that they watched lessons 1-2 times during the first two years of their studies. Only 10 students admitted that they regularly watch lessons at classes at the university (more than 2 times per semester). Most of those who watched the lessons said that such classes were held as follows: first they watched the recording of the lesson for 40-45 minutes without breaks, and then the teacher
gave a detailed description of what they saw, after which the teacher asked the opinion of students about the advantages and disadvantages of the lesson, the stages of the lesson and the methods used.

As a result, watching the lesson actually turns into a lecture, which is considered the least effective method of learning – both according to the students themselves (Petty, 2010, pp. 170-171) and according to teachers and experts. Moreover, the inefficiency of lectures is confirmed by many scientific studies, including in other areas (Ericsson, 2016, p. 173), for example, when studying at medical universities (Forsetlund, 2012).

4 Discussion

The categories used in this study reflect the essence of the process of developing competencies among students. Thus, the concept of “watching” implies the one-sided nature of the transfer of information and passivity in its perception. Understanding the limitations and significant disadvantages of this approach, we initially abandoned the idea of watching the lesson in full without interruptions.

Initially, these lessons were held as follows: students, employees of the Pedagogical Workshop and invited teachers of the university departments were sitting in a classroom in rows (as in the auditorium). During 40-45 minutes of the lesson, we paused 2 or 3 times (at the end of a certain stage of the lesson or its important semantic part), during which a teacher of the Pedagogical Workshop (in this case, acting as a moderator) addressed a group of students in frontal form. Our traditional questions were as follows:

- What methods and technologies did the teacher use?
- What advantages and disadvantages of the lesson did you note?
- What ICT technologies are applied by the teacher?
- How would you describe the teacher’s teaching style?

However, as these lessons were conducted in this format, we faced a number of problems. First, a large number of students were disengaged from the discussion process – either did not express their opinion or evaluation at all, or these assessments were extremely poor (“I liked the lesson”). Second, as a rule, not more than 5 most active, interested and (presumably) sociable students took part in the discussion. Third, it was noticeable that many students were not only periodically distracted from the video and discussion (this is a natural phenomenon), but were generally engaged in other types of activities – reading books or notes, surfing the Internet or communications on social networks. Finally, fourth, students left the class without writing any important and useful aspects that we saw or discussed while working with the video recording of the lesson.

The practice of receiving anonymous feedback and reflection through Google forms introduced by us showed that a significant part of our students (slightly more than a half) rated such a format of work as “boring”, “uninteresting”. At the same time, only a quarter of students described such classes as “useful”, “interesting” and “practice-oriented”. The remaining part of the students evaluated these classes at the middle level.

Not the most efficient and successful first experience forced us to completely review the principles of such classes, their content and format.

We abandoned the passive perception of the lesson and shifted to the most interactive and versatile engagement with students of a pedagogical university, which entailed a change in the format of activity.

The first significant change was that the employees of the Pedagogical Workshop began to independently preview and analyze the lesson record. If before the joint viewing with
students was also a “premiere show” for us, now we analyzed the lesson from various angles and actively prepared for the lesson with students.

The first (“zero”) stage of organizing the lesson began to include not only searching for a video lesson, downloading it, posting ads and inviting students, but also preparing tasks, questions, handouts, small tests (with open and closed answers, with a single and multiple choice, matching, etc.) and check lists.

As part of the new approach, we abandoned the classical arrangement of chairs in several rows, and switched to the “island” seating arrangement. The previous seating did not imply tables, which, in our opinion, initially put students in a less working format. In a new seating arrangement (which, however, is classic for group work), each group (“island”) is arranged around several tables.

The proposed tasks are aimed not only at developing methodological literacy and expanding the pedagogical arsenal of future teachers, but also at testing and developing the subject matter knowledge, as well as flexible competencies, including public speaking skills, teamwork, communication, critical thinking, creativity, time management, etc.

The development of soft skills is one of the primary tasks in the activities of the Pedagogical Workshop at CSPU. Unfortunately, the problem of developing soft skills in educational institutions is still very acute, although the expert community has long come to a consensus on the need for their introduction into educational curricula. Thus, one of the major international studies notes that “it is necessary to try to change the curricula in order to pay more attention to soft skills and develop various forms of additional activities of students” (Tsalkova & Pakhotina, 2019, p. 198).

For a more detailed understanding of the proposed approach, let us consider a particular example – the lesson of the winner of the “Teacher of the Year of Russia 2020” I.I. Heorkhe conducted at the 8th grade on the topic “Nations and Interethnic Relations”, which is available on the contest website (https://teacherofrussia.ru) and on YouTube.

Before starting the lesson with second-year students, the team of the Pedagogical Workshop prepared the next worksheet, which in this case contains 21 tasks of different format and complexity. Subsequently, these worksheets were handed over to each student.

Worksheet (questions and tasks):

1. What kind of motivation does the teacher use at the beginning of the lesson?
2. Who formulates the topic of the lesson?
3. In groups, think of your own way to start a lesson on this topic and demonstrate it within 1 minute.

A. The teacher uses a chart with the number of nations in different countries. How else can we illustrate that there are many multinational states in the world? Think of at least 2 ways and tell us about them.

B. The teacher asks children to name two social groups that are in the classroom (boys and girls). Write down 5 more criteria to highlight social groups in this class.

C. The teacher, together with children, names 4 stages of the development of the ethnic group. Name and define each of them.

D. The teacher notes that in science there is no single definition of the term “nation”. Name at least 3 more social science concepts that have many definitions.

E. The teacher gives a peculiar formula, with the help of which it is possible to define any concept, and as an example asks children to give a definition of a pen. Using this formula, define 2 concepts – one social science term of your choice and one item in this room.
F. During the lesson, one of the students (Nikita) constantly puts his hand up, gives many answers, draws attention, and gets upset when he is not allowed to answer. How does the teacher react to this? What would you do in a similar situation?

G. The student Anfisa confused her version and completed another task. How did the teacher react to this? Try to play a similar situation “on stage” and offer your reaction to this situation.

H. The teacher leads children to two approaches to understanding nationality and its definition. What scientific names do these approaches have?

I. Let us debate a little. The first and second groups advocate the first approach, the third and the fourth – the second. Think of at least 2 arguments in favor of your approach and examples of 2 personalities whose biography can convince the other side of your rightness.

J. The teacher asks schoolchildren to give advice to politicians and states on the prevention of interethnic conflicts. Give your advice.

K. The teacher reflects on the situation thus asking students to describe the lesson in one word. Give (each student) your assessment of this lesson in one word – write it in capitals on the sheet and turn it up to share your impressions with others.

4. How does the teacher evaluate the answers of students? Does he use praise?

5. How does the teacher behave when students perform various tasks? How effective is this approach? Why?

6. Rank the characteristics of the presentation used according to a 10-point scale:
   - aesthetic qualities
   - informational content.

7. Describe the teacher’s pedagogical style with 5 adjectives.

8. What pedagogical methods and techniques are used during the lesson?

9. How does the teacher complete the lesson? Think of your way to complete the lesson on this topic.

10. Name three positive and three negative points in this lesson.

All questions and tasks are divided into two groups, numbered with numbers and letters, respectively. “Numeric” questions are universal and can be used in any lesson. “Alphabetic” questions are unique to a particular lesson and are therefore updated before each such lesson. The tasks are dealt with sequentially, i.e. first universal, then special, and then again universal exercises and questions.

When completing classes, we ask students to pay attention to the QR code on the worksheet. By scanning it, they can go to the survey page in Yandex or Google forms. The questionnaire has several goals. First, to assess how well students dealt with the subject content and used methodological techniques and pedagogical technologies. Second, to receive feedback on the quality of the lesson.

For example, for the lesson described above, we used the following questionnaire/test:

1) Match the terms and definitions:
   A) Family
   B) People
   C) Nation
   D) Tribe

   1. A totality of families, which are connected with each other by common features of culture, unity of origin, religious ideas and rites, as well as the commonality of the language.

   2. A group of blood relatives originating in the same line (maternal or paternal).

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3. A historically established community of people united by a common territory, language, mentality, culture.
4. A historically established community of people based on the community of territory, economic and political relations, language, culture and psychological patterns.

2) What pedagogical technologies or teaching methods did the teacher use in the lesson?
A) Heuristic conversation
B) Problem and dialogical learning
C) Project-based learning
D) Case technology

3) What forms of work did the teacher use?
A) Individual
B) Pair
C) Group
D) Frontal

4) What trends in the development of interethnic relations were mentioned in the lesson?
A) Differentiation
B) Segregation
C) Integration
D) Stratification

5) What is the type of the lesson?
A) Reflection
B) Systematization of knowledge
C) Developmental control
D) Discovery of new knowledge

6) Evaluate the practice-based approach of the Pedagogical Workshop lesson:
A) not related to practice
B) low level
C) average level
D) high level

7) How do you generally assess the efficiency of the Pedagogical Workshop lesson:
A) inefficient
B) low-efficiency
C) generally effective
D) very effective

8) What was this lesson for you? Give 3-5 characteristics.

9) How would you improve our lessons?

10) Give a general assessment of a lesson conducted within the Pedagogical Workshop according to a 10-point scale (where 1 – very bad, 10 – excellent, could not be better).

The peculiarity of these tasks is not only in their diversity (subject questions, methodological tasks, exercises requiring the use of soft skills), but also in the application of active and interactive methods of cooperation and training.

There are many reasons why these tasks are effective and practice-oriented:
- tasks require students to express their own opinion, arguments, thus developing communicative, oratorical and even acting skills;
- tasks contribute to pedagogical creativity – search for new and alternative ideas for lessons;
- exercises help to develop skills of group work and team building;
- exercises increase the involvement of students in the study, thus requiring them to be more attentive and perform more in-depth analysis of what is happening;
- tasks increase students’ motivation to study and improve the psychological atmosphere both in the group as a whole and in a particular lesson;
- exercises enhance students’ interest in future pedagogical activities;
- exercises contribute to the assimilation and practical application of effective pedagogical methods and techniques, etc.

It is worth noting that the transition to a new format of lessons led to an increase in the duration of these classes – if before they lasted not more than one hour, now, as a rule, they last for an hour and a half.

5 Conclusion

The fact that the interest of students in this format is higher than it was before was also evident with the naked eye. However, we continued the practice of reflection using digital tools (Yandex or Google forms). The analysis of received answers showed a dramatic change in the attitude of students to lessons – more than 90% of students noted that such work with video recordings of lessons is “very effective”, “practically useful” and “very interesting”. Only 3% of students (1 out of 33) left negative feedback. The average ranking of lessons with the initial approach was 7.1 points, and with the new one – 9.2 points.

Group work and a wide variety of tasks solved the problem of low involvement of students. A large amount of work, non-standard nature of exercises, variety of activities require active and initiative participation from each student in the group (4-6 people) and at the same time allow them demonstrating their various abilities. Group work significantly reduces the psychological effect of blurring responsibility often observed in large social groups. The elements of competition and rivalry between teams serve as an additional incentive for active participation in the work.

It is important to note that the possibilities of introducing a new format of training are not limited to pedagogical universities only. In our opinion, it can be successfully introduced at schools during methodological days, at schools for advanced studies and other educational institutions engaged in improving the qualifications of practicing teachers.

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References


Ethnic identity in the polyphonic structure of the musical consciousness of a teacher-musician of the North Caucasus

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Abstract. The article is concerned with the problem of the “presence” of ethnic identity in the musical consciousness of the individual. The manifestation of ethnic identity is observed both in the unconscious and actual layers of the psyche. This is a reciprocal process: the archaic ethno-intonemes of the unconscious give rise to the specificity of musical folklore, and the folklore resounding in space and time influences the formation of the individual consciousness of the individual. The polyphonic structure of musical consciousness is provided by the functions it implements. An empirical study of the influence of the ethnic identity of future musician teachers on the reflective, reflexive and spiritual functions of the actual musical consciousness of the future teacher-musician was carried out on the basis of the Kuhn-McPartland test “Who am I?” (L.G. Pochebut’s version) and a survey. As a result, the dissonance of the ideas of future musical teachers about their ethnic, cultural affiliation and the real implementation of these ideas in their own musical practice was established. The formation of the musical consciousness of future teachers-musicians of the North Caucasus region, consistent with its own essence and polyphonic structure, is seen through the “folklorization” of culture and education in the region.

Keywords: consciousness, musical consciousness, self-consciousness, ethnic identity, intonation, musical folklore, teacher-musician, musical education

1 Introduction

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Musical consciousness as a category of musical-psychological and musical-anthropological science has firmly entered the space of research devoted to various aspects of the professional development of a teacher-musician, thanks to the concept of A.V. Toropova about the phenomenon of intonation in the genesis of musical-linguistic consciousness [1]. According to A. V. Toropova, musicality is the highest mental function, consisting in extra- and intra-psychic knowledge of the world. The essence of this function is in the generation and development of musical intonation consciousness as an extra-verbal way of comprehension, preservation and translation in the sign-symbolic embodiment of the human inner world [2]. The material confirmation of this thesis is the uniqueness of musical manifestations (from crying to major forms of musical art) in the samples of musical creativity of different peoples of the world, creating, according to A. V. Toropova, “their own intonation-sign reality”. Folk musical culture is an artifact of the mentality of ethnic groups.

Various aspects of the ethnic self-consciousness of the individual were considered in the works of scientists from various scientific fields (philosophers, psychologists, linguists, etc.). C. Montesquieu considered the geographical, climatic determinism of the national “spirit” and the character of different peoples [3]. The connection between the inner world and language is revealed in the works of H. Steinthal [4]. G. Lebon argued that the “soul” of the race is manifested in the feelings, interests, behavior, beliefs of generations. It is immutable and inherited due to the unconscious layers of the psyche [5]. Recognizing general and personal dispositions in the structure of the personality, G. Allport, was convinced of the integrity, the image of the Self. Motivations are determined by personal intentions, interests, expectations, orientation of representatives of various ethnic groups, contribute to self-knowledge, self-awareness of the personality of its ethnic essence [6]. The civilizational approach allowed N.Ya. Danilevsky to substantiate the concept of the cultural and historical type of the people, and as the main, defining criterion of self-identification, to determine the originality of the verbal sign-semantic symbolization [7]. Cultural-historical type, according to N.Ya. Danilevsky, a holistic education that has the limits of the natural nature of ethnic essence. The destruction of this integrity leads to assimilation and marginalization processes, to the erosion and loss of ethnic identity. G. Shpet in his “Introduction to Ethnic Psychology” asserted the subjectivity of the ethnic consciousness’s comprehension of the objective world: “Each ... people ... perceives, imagines, evaluates, loves and hates the objectively current situation, the in this relation to everything that objectively exists, his “spirit” or “soul” or “character” is expressed in a real sense” [8].

The degree of ethnic identification is directly dependent on the social environment and cultural environment, on the knowledge and feelings replicated by them. The result of development is the value orientations and worldview convictions of the individual.

T.G. Stefanenko revealed the psychological determinants of the actualization of ethnic consciousness. In the context of our study, the statements put forward by her about the primacy of the elements of spiritual culture in a number of ethno-differentiating features of the individual and society, about the value-oriented function of ethnic identification, receive a response [9].

Z.I. Aigumova refers ethnic self-consciousness to the layer of ordinary consciousness, which is commonly called mass consciousness. According to the author, ethnic self-awareness at the level of orientations, preferences and stereotypes, reflects the idea of one’s “self” [10].

The study of the features of musical consciousness is expedient based on the concept of the five realities of human existence by V. S. Mukhina [11]. The influence of personality traits on the perception of music is reflected in the works of V.I. Petrushin, A.L. Gotsdiner, G.M. Tsypin [12-14]. The works of F. V. Malukhova [15] are concerned with the analysis
of the ethnic component of the musical consciousness of a person. At the same time, ethnic identity as an integral component of the polyphonic structure of the musical consciousness of an individual, which determines the quality and specificity of the perception of musical art, was not considered in these works. The purpose of our study is to identify the features of the influence of the ethnic identity of the future teacher-musician on the processes of formation of his musical consciousness. In accordance with the purpose, the following problems were defined: 1) to reveal the essence of the main categories of research; 2) to conduct an empirical study of the features of ethno-musical consciousness on the example of the North Caucasus region; 3) to reveal the influence of ethnic identity on the process of formation of the musical consciousness of the teacher-musician of the North Caucasus. The hypothesis of the study was the assumption that the musical consciousness of the teacher-musician of the North Caucasus has a polyphonic structure, in which ethnic identity is the component that determines its features.

2 Methods

The study of the phenomenon of musical consciousness of a teacher-musician of the North Caucasus was carried out by the authors on the basis of the above methodological provisions, as well as through the results of an empirical study built on the basis of approaches to the study of professional identity proposed by Z. M. Gadzhimuradova [16], Z. I. Aigumova [10], Z. Sh. Gadzhieva [17], F. V. Malukhova [15].

The disclosure of the essential aspects of musical consciousness is possible through the understanding of its functions, the correlation of the naturally given and introduced by culture, verbal and non-verbal ways of transmitting meaning-experiences, the “contribution” of the unconscious layers of the psyche in the acceptance, rejection or generation of certain musical phenomena. A.V. Toropova defines the following functions of musical consciousness: reflective, reflexive, regulative, generative, spiritual [2], which make it possible to build the structure of musical consciousness and determining the vector of research work.

In order to identify the specifics of the ethnic musical consciousness of future musical teachers of the North Caucasus, the authors hereof used: the Kuhn-McPartland test “Who am I?”; the test of cultural and value orientations by the American psychologist J. Townsend (L.G. Pochebut’s version). Moreover, students were asked to rank their personal preferences in the choice of music in different directions according to the degree of importance. The ranked list included the following positions: musical folklore of my people, Russian musical folklore, folklore of the peoples of the world, Chechen/Dagestan professional (academic) music, Russian classics, foreign classics, Chechen/Dagestan pop music, Russian pop music, foreign pop music. These psychodiagnostic methods made it possible to determine the influence of the ethnic identity of future musical teachers on the reflective, reflective and spiritual functions of the actual musical consciousness.

The sample included 30 students of the Institute of Culture and Art of the Dagestan State Pedagogical University and 30 students of the Institute of Art of the Chechen State Pedagogical University. 3rd and 4th year students, ages 19 to 25. 70% of the respondents did not have a special musical education before entering the university.

Based on the concept of A. V. Toropova [1] and the methodology for developing the ability to perceive music and the need for it in a situation of interaction between different ethnic cultures, developed by F. V. Malukhova [15], the authors tested a method for diagnosing the musical consciousness of future music teachers of the North Caucasus. This technique is based on the actualization of the deep archetypes of the musical language and the development of conventional means of expressing deep archetypes in a particular musical language.
3 Results

The results of the test of cultural and value orientations by J. Townsend (L.G. Pochebut’s version) made it possible to identify the orientation of future musical teachers towards traditional or modern culture. The conducted study gave the following results for the total sample: 45% of students – future music teachers tend to modern culture, for 35% the priority is traditional culture, 20% are adherents of a dynamically developing culture. Thus, the main vector of the formation of the musical consciousness of future teachers-musicians of the North Caucasus lies in the space of modern culture, with the preservation of the significance of traditional culture and the trend towards a dynamically developing culture in the forms of practical-activity achievement of life goals. The cultural halo of human life is influenced by a huge information flow in which a person builds his goals, behavior throughout his life. Involving in social relations, interacting with people, a person feels himself the subject of his mental and physical states of actions and processes. Intra- and extra-psychic experience of one’s own “Self” is expressed in the understanding of identity to oneself in the present, past and future, not only in the individual path of professional development, but also in identity to the values of the family, clan, ethnic group, culture.

To determine the ethnic identity of future music teachers, the Kuhn-McPartland test “Who am I?” was applied. The following results were obtained: in a series of 20 self-identification statements to the question “Who am I?” 70% of respondents indicated their nationality, religious (Muslim) – 54%, professional (teacher, musician, singer, student, etc.) – 60% of respondents. A high percentage of ethnic self-identification allowed us to assume the likelihood of the manifestation of conscious attitudes of the respondents’ musical consciousness. The universality of musical consciousness in all cultures gets its “refraction” in ethnic diversity. The disclosure, “unpacking” of the meaning-experience folded in the musical intonation symbol is mediated by the individual musical consciousness and depends on the musical and ethnic experience of its bearer. Connecting individual musical consciousness to a wide field of musical and sound reality is possible both at the cognitive and affective levels.

The respondents’ musical and cultural preferences were diagnosed by means of a ranked list of musical art directions. In the combined sample of students from both universities, the following results were obtained: foreign pop music ranked first in terms of the number of elections, then in descending order – Russian pop music, classical music (Russian, foreign), Chechen/Dagestan pop music, Russian pop music, musical folklore my people, Chechen/Dagestan professional (academic) music, folklore of the peoples of the world, Russian musical folklore). On the one hand, musical and cultural preferences characterize the current level of development of musical consciousness, on the other hand, they influence the process of its further formation. Musical and cultural preferences form an individual musical and cultural experience, which includes such layers as: 1) the experience of mental appropriation of native culture; 2) the experience in the development of musical consciousness in a multicultural and multi-confessional space; 3) the experience of professional musical consciousness, integrating and transforming other levels. Musical consciousness, reflecting the wide field of human existence, predetermines the variety of factors influencing its formation, as well as the need to identify the most significant determinants of its development. It seems logical in the study of the ethnic component of musical consciousness to rely on the formative experience of culture.

The individual-personal phenomenon of musical consciousness can manifest itself in the range from bodily to higher spiritual levels. Individual musical consciousness can manifest itself not only in sound intonation, but also in plasticity, gestures, and words. A.V. Toropova proposed the concept of the “map of the psychosemantics of musical and linguistic consciousness”, where the level of protoforms, or archetypes of intonation, is
recognized as the basic one; the second is the level of “cultural-conventional language stereotypes of intonation of experiences (ethno-cultural intonation dictionary of speech, gesture and musical intonation)” and the third is “time-tested artistic samples of intonation–semiotic formulas ... features of ethno culture ... marking its ethno-cultural identity” [1, p. 79-80].

In order to actualize the deep archetypes of the musical language, we have tested a method for diagnosing the musical consciousness of future musical teachers in the North Caucasus. The first stage assumed students’ acquaintance with the symbols of their native culture, contained in myths, fine arts, folk dances, arts and crafts, national costumes, through which the native ethnic culture of the peoples inhabiting the region was immersed. The main “trigger” in this technique is the fixation of the received sensations, experiences and feelings of the listeners. In the process of such concentration on deep sensations, the emotional and sensory content begins to grow, as it were, from within. The second stage of the methodology was implemented through the development of deep archetypes of intonation, on the material of a certain musical language in “sign” musical works. As a result of approbation of the methodology for the development of musical consciousness of future teachers-musicians, it was revealed that when comparing the native musical culture with other ethno-musical traditions, one’s own national culture is highlighted and realized at a new level.

Comparison of the values of the diagnostic methods carried out indicates a certain dissonance in the ideas of future musical teachers about their ethnic, cultural affiliation and the actual practice of striving for modern culture. The nominal attribution of oneself to traditional culture contradicts the attitudes of individual consciousness formed in the space of the mass media.

4 Discussion

The disclosure of the features of the phenomenon of musical consciousness on the material of the musical culture of the North Caucasus is an urgent problem both for the region and for the broad scientific and musical-pedagogical community. In the author’s concept, the phenomenon of the musical consciousness of a teacher-musician has a polyphonic structure, in which there are archaic, sacred, artistically stylized and matrix formations. The author’s research interest was the generic “voices” of the ethnic tradition, which determine the conscious and unconscious settings of the individual musical consciousness, as well as the features of its “embedding” in the modern socio-cultural space and professional semantic field. A.V. Toropova singled out the following layers of musical sign-symbolic intonation [1]: 1. The intonation of the experience of the corporality of human existence. An example is the psychological impact of dance movements with appropriate sound accompaniment. The response of the listener’s corporality (decoding of the movement folded into musical intonation) occurs unconsciously through motor syntonation. 2. The intonation of the experience of the landscape of human existence. Ethnic styles of the musical language are determined by the landscape of the territory. “Plain” cultures and “mountain” cultures differ in melody, rhythm, dynamics, musical instruments, etc. strangers.” 4. The intonation of the experience of mystical involvement: altered states of consciousness, contact with unknowable forces, emotional upheavals, etc. The layers of musical intonation identified by the author formed the basis for building the structure of individual musical consciousness, in which “ancestral voices” served as the basis for identifying its features, due to ethnic identity.

A person acquires knowledge about his identity by appropriating other people’s points of view regarding himself, analyzing his own behavior and situations in which it manifests itself. A positive ethnic identity is accompanied by feelings of pride, dignity, confidence,
and promotes interethnic tolerance. At the same time, hyper-identity with one’s ethnic group contributes to the formation of ethnocentric stereotypes, prejudices towards “foreign” culture, to avoid interaction with it. On the contrary, mono-ethnic identity is expressed in complete acceptance, dissolution in a different culture, leading to diffusion, looseness of ethno-cultural identity. Supranational, cosmopolitan identity can lead to the loss of ties with the native culture, to the loss of the integrity of the self-image. “Multiple identity is the most beneficial for a person, it allows him to use the experience of one group to adapt to another, to master the riches of another culture without compromising the values of his own” [18].

Modern musical culture of the North Caucasus is an ambiguous phenomenon. The activation of ethno-cultural identity is more and more clearly manifested against the backdrop of globalization that has engulfed all aspects of the life of Caucasians. Based on the theoretical provisions of G.U. Soldatova [19], it can be assumed that the determining factors of this phenomenon were:

1. The arbitrariness of the division of ethnic territories, the forced resettlement of ethnic groups in the recent historical past of Caucasians.
2. The dominant influence of the titular ethnic groups in politics, economics, culture, education and other areas of social life, the “imposed identity syndrome”, leveling the independent status of ethnic communities.
4. The need for positive ethnic identification, psychological support in a changing social world.
5. Attractiveness of stability, immutability and accessibility of ethnic identification as one of the forms of social identity.
6. Intensification of direct and indirect interethnic contacts, identification-differentiation processes.

“An ethnos is a group of people that is stable in its existence, realizing itself as its members on the basis of any signs perceived as ethno-differentiating” [18]. Most researchers refer to them as language, culture, religion. The phenomenon of musical consciousness involves the differentiation of its types in accordance with the components that fill its structure. According to V. S. Mukhina, the main mechanisms for the development of personality consciousness are identification and isolation [1]. The entry of the individual into the intonation-symbolic field of public musical consciousness occurs at different levels: the individual – in the ethnos, the ethnos – in the global musical sound. Musical consciousness provides a person with the possibility of self-cognition through music. The experience of self-comprehension, enclosed in intonational symbols, allows you to save anthropologically significant mental states, images, experiences; regulate optimal functional states.

The intonemata of consciousness form a single sign reality, breaking up in culture into separate forms of intonation: plastic, static, sound. Each form of intoning consciousness is fixed in the corresponding language system. “In the act of sound-symbolic intonation of the events of a person’s mental life, a different number of “voices of culture” and their combinations sound. This phenomenon of the mental life of a person, as one of its qualities, was accurately called by M. M. Bakhtin the polyphony of consciousness. This means that the individual consciousness enters into a dialogue, both external and internal, with these voices. They form the musical consciousness of the personality, its musicality and the general structure of the personality of the subject of this polyphony” [21].

The role and functions of ethno-cultural standards in the formation of the musical consciousness of the individual have not yet been sufficiently disclosed. The formation of ethnic identity can occur at different levels. At the first level, the correlation of knowledge
about oneself occurs within the framework of the comparison of one’s own “Self” and “another person”. The second level is the level of dialogue with oneself, where a person already operates with ready-made, formed knowledge about himself. Self-cognition is built on a social and individual level. In our approach, the choice of samples and standards has great plasticity, not limited by the social identity of the individual. In the conditions of a multicultural region, a teacher-musician is required to be able to rely on the entire polyphony of the musical consciousness of the inhabitants of the region, on the musical traditions of not only European and Russian cultures, but primarily on the traditions of national cultures.

5 Conclusion

The way of understanding the emotional and semantic layers of the musical culture of any nation lies through the formed musical consciousness. Ethnic identity, woven into the structure of musical consciousness, serves as a kind of “filter” for the perception of the “musical picture” of the world. The source of meaningful filling of the polyphonic structure of musical consciousness is the archaic intonemes of its unconscious layers, as well as the musical culture of peoples that resounds here and now. Integration of ethno-musical culture into the space of musical education will minimize the dissonance of nominal and actual ethnic identity, form the musical consciousness of the future teacher-musician of the North Caucasus, who is receptive to the whole “palette” of world musical art.

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Methods of training of a future teacher for the implementation of pedagogical support for intellectually gifted children

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Abstract. This article depicts the analysis of the problems of identifying the intellectual and creative potential of gifted schoolchildren, improving the effectiveness of preparing future teachers for the implementation of pedagogical support for intellectually gifted schoolchildren. The authors propose a methodology for professional training of a future teacher for the implementation of pedagogical support for intellectually gifted children. This work substantiates the following stages: I. The motivational-objective stage. II. The gnostic-activity stage. III. The reflexive-evaluating stage. The authors come to the conclusion that, regardless of the stage of the methodology implementation, each of them should gradually undergo a qualitative transformation of the motivational-axiological, emotional-volitional, cognitive and activity components of the future teacher’s readiness to provide pedagogical support for intellectually gifted senior high students. The training methodology dedicated to future teachers and their implementation of pedagogical support for intellectually gifted senior high students enriches the possibilities of a pedagogical university in terms of the formation of a competitive specialist. The prospects of this study within the framework of this problem are as follows: the expansion of the set of pedagogical conditions that ensure the qualitative preparation of a future teacher for the implementation of pedagogical support for intellectually gifted schoolchildren at the stage of primary and high school education; the development and justification of a system of laws and principles for the formation of teacher readiness for the implementation of pedagogical support for intellectually gifted children.

Keywords: future teacher, student, author’s methodology, giftedness, gifted children

1 Introduction

At all times, the intellectual potential of the individual has been considered as the driving force of the economic and social development of any state. In modern high-tech society, there is a significant increase in interest in identifying and realizing the intellectual abilities of young people. Gifted children with extraordinary abilities represent a special social resource [1], which forms the basis of the country’s competitiveness in today’s unstable world. At the same time, while placing serious hopes on the future achievements and inventions of gifted children [2], it is necessary to create conditions to meet their needs in the present. Thus, in high school age, the leading activity is life and professional self-determination, which is

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not always clear. Therefore, intellectually gifted high school students represent a special category of students who need special targeted pedagogical support.

However, it can be stated that today the identification and improvement of the intellectual and creative potential of gifted schoolchildren, despite numerous efforts of science and practice, remains a rather complex pedagogical process. This can be explained by various factors, one of which is the lack of awareness of modern teachers about the age characteristics of older schoolchildren, technologies for identifying intellectual giftedness at different ages, mechanisms and tactics of pedagogical support for intellectually gifted high school students. At the same time, according to the professional standard of the teacher (Order of the Ministry of Labor of Russia dated 18 October 2013 No. 544 “On approval of the professional standard “Teacher (pedagogical activity in the field of preschool, primary general, basic general, secondary general education) (educator, teacher)” [3], the teacher is to know the basics of pedagogical, age, correctional psychology. And, in addition, he should be able to protect the interests of students, help them in a conflict situation or unfavorable conditions, as well as to identify and develop giftedness. In this regard, the preparation of the future teacher for the implementation of pedagogical support for intellectually gifted high school students is presented in the current and long-term plans.

This particular research indicates that today teachers are not well acquainted with the technology of pedagogical support, while recognizing the need to organize special conditions for this category of students.

The novelty and originality of the author’s methodology of training of a future teacher for the implementation of pedagogical support for intellectually gifted high school students lies in the fact that it forms a holistic view of the process under study and its implementation. Moreover, it positions the achievement of quite specific ways of pedagogical support activities by the future teacher at each stage of such an implementation.

2 Methods

The methodology is designed for two years and is carried out in three stages. Regardless of the stage of implementation of the methodology, each of them should gradually undergo a qualitative transformation of the motivational-axiological, emotional-volitional, cognitive and activity components of the future teacher’s readiness to provide pedagogical support to intellectually gifted high school students. It is assumed that teachers involved in the implementation of the methodology should base their teaching activities on the provisions of system-activity, axiological, eco-psychotherapeutic and acmeological approaches [4, 5].

3 Results and discussion

The authors of this article believe that with the purposeful formation of individual components, qualitative changes occur in other components, which allows to talk about the complex nature of the pedagogical conditions. Therefore, Table 1 demonstrates this relationship and the complex nature of the pedagogical conditions (Table 1).
The table shows that the nature of the mutual action of pedagogical conditions has redefined the context of their inclusion at various stages of the implementation of the methodology. Thus, at the motivational-cognitive stage, only the first pedagogical condition was realized; at the gnostic-activity stage, along with the first pedagogical condition, the second and third conditions were connected; at the reflexive-evaluating stage, the main attention was paid to the further implementation of the third pedagogical condition.

Each stage of the future teacher’s training is described as follows.

At the motivational-objective stage, the main efforts were focused on mastering the conceptual apparatus of the problem under study. It was also important to determine the inner meanings of the formation of the future teacher’s readiness to provide pedagogical support to intellectually gifted high school students. For this purpose, various forms of training sessions were used: overview lectures, visualization lectures, seminars and workshops. Moreover, the presence of such forms presupposes the methodically correct inclusion of various methods in the classroom, which are preferable in terms of forming the readiness of the future teacher to work with intellectually gifted high school students and, in particular, providing them with pedagogical support. It is possible to indicate these methods: problem lecture, discussion, case methods, creation of problem situations and success situations.

Thus, a problem lecture allows not only to passively perceive the material as in a traditional lecture, but also to actively comprehend the changes taking place in the world, to understand the importance of developing intellectual giftedness, the importance of organizing pedagogical support for students. Discussion as a method, which was used in various lectures, seminars and practical classes, helps to determine the student’s own position in the issue under consideration, the formation of a personal worldview and familiarization with the points of view of their peers, teachers, domestic and foreign researchers in the scientific literature. The case method allows to simulate actual educational situations that may arise in the real interaction of a teacher with older students, to work them out in a gentle mode (not in real practice), which in itself trains many skills necessary for a future teacher to work with gifted schoolchildren [6].

The authors single out the creation of problematic situations and situations of success separately as independent methods, since it is overcoming difficulties, solving various kinds of problems, achieving planned results that stimulates the teacher to self-development in
personal and professional terms. This is very important for a student who understands the importan
ce of providing pedagogical support to intellectually gifted high school students [7].

For each of the stages, the implementation of the allocated pedagogical conditions is provided. It is important to indicate them:

– use of the method of developing discomfort in the classroom in order to train the skills of a future teacher to overcome an intellectual microcrisis;

– inclusion of the elective course “Intellectual giftedness of a high school student: technology of pedagogical support” in the educational program;

– mastering the tactics of pedagogical support of intellectually gifted high school students by a future teacher during educational and industrial practice in a secondary school.

So the first pedagogical condition was realized at the first (motivational-objective) and second (gnostical-activity) stages. Further, the authors consider the specifics of the teacher’s use of the “developing discomfort” method in the classroom.

This method implies the implementation of several effects: on the one hand, it allows to focus on the activation of internal personal resources that are important for resolving various problematic situations. This method positively correlates with the method of case technologies and the technology of pedagogical support, but its specificity lies in the fact that it was developed by Moscow psychologists-practitioners to work with intellectually gifted children. The authors were impressed by the focus of this method on creating difficult situations that are overcome by a child with intellectual giftedness, whose psychological characteristics are distinguished by disharmony. The first paragraph describes the psychological features of intellectually gifted high school students, where there is an advance in the development of intellectual (gnostical) processes and a lag in the development of communicative, emotional-volitional and motivational qualities (with a disharmonious type of development). This feature indicates the relevance of the development of all spheres of personality, not just intellectual. Pedagogical support implies not only the creation of maximum favorable conditions for personal development, but also the formation of certain conditions that stimulate the development of social skills, volitional processes, and so on. Such situations often present some difficulties, the overcoming of which leads to the formation of certain competencies. In this regard, the method of “developing discomfort” is associated with the method of case studies and with the technology of pedagogical support. It has been tested in working with intellectually gifted students, so its effectiveness is undeniable. It turns out that its use is advisable and even necessary when working with intellectually gifted high school students who are on the threshold of adulthood, where various difficulties, life situations will need to be solved independently, and not at the expense of adults. At the same time, the students of the first years of study themselves are “yesterday’s schoolchildren”, that is, they are also in the age period called “youth”, in which only the initial attempts of adulthood are noted. It was the use of such a method in the classroom by teachers in the process of professional training at a university that allowed them to learn how to cope with life difficulties, overcoming an intellectual microcrisis.

Here the student plunged into a certain problem, even a provocation, which not only disoriented him, but even “knocked him out of the rut”. The task of the future teacher was to adequately get out of artificially simulated or actually encountered difficulties. Moreover, the situations were addressed both to pedagogical difficulties that may arise when working with intellectually gifted high school students, and to their own possible life difficulties.

The approximate main list of possible similar difficulties is presented in the table below (Table 2). This is just one of the variants of such situations, there may be much more of them, and the teacher can select such problematic situations himself or make a collection of students’ statements.
The situations presented in the table (second column) were collected from conversations with students who identified typical difficulties for them. Therefore, every teacher can replenish the bank of such situations. To get a collection of various life difficulties typical for students, it is also recommended to conduct an anonymous survey when the latter indicate problematic situations from their own lives or from the lives of friends and acquaintances.

A set of situations for working out the problems of intellectually gifted high school students (the first column of the table) can be obtained by analyzing psychological literature on the problems of this category of students. It is also possible to conduct a survey of students, revealing their knowledge in the field of psychology of senior schoolchildren showing potential or actual intellectual giftedness.

The effect of the productive resolution of such simulated situations was that the joy of overcoming difficulties motivated the individual to further transformations in the surrounding reality, provoked the desire to provide help and support to those who particularly need it. The solution of such situations is aimed at overcoming the intellectual microcrisis of the individual, so students actively participated in solving these situations, while feeling the disclosure of their inner potential. In other words, this is a kind of personality development training that is stretched over time and for individual classes.

**Table 2.** Situations that were simulated in the classroom by means of the method of developing discomfort

<table>
<thead>
<tr>
<th>Pedagogical difficulties when working with intellectually gifted high school students</th>
<th>Difficulties that may arise in educational and professional activities and in other life spheres</th>
</tr>
</thead>
<tbody>
<tr>
<td>– the refusal of a high school student with intellectual talent, who shows high results in the subject, to participate in the Olympiad;</td>
<td>– conflicts with the university teacher about the debt on the credit;</td>
</tr>
<tr>
<td>– a pronounced fear of public speaking by a student who has prepared a brilliant report for a scientific conference;</td>
<td>– conflicts with a classmate;</td>
</tr>
<tr>
<td>– suicidal threats from a student;</td>
<td>– parents’ refusal to give money for education;</td>
</tr>
<tr>
<td>– strained relations of a high school student with his parents, who seeks help from a teacher in resolving a protracted conflict;</td>
<td>– the request of the dormitory commandant to move out of the room;</td>
</tr>
<tr>
<td>– refusal of a high school student to go to a lesson with one of the teachers;</td>
<td>– boyfriend (girlfriend) does not answer calls for three days, while communicating with friends;</td>
</tr>
<tr>
<td>– reduction of academic motivation in all subjects;</td>
<td>– lost interest in studying, there was a desire to transfer to another faculty;</td>
</tr>
<tr>
<td>– conflicting relationships with classmates;</td>
<td>– parents are against girlfriend (boyfriend);</td>
</tr>
<tr>
<td>– low self-esteem, perfectionism, manifested in constant dissatisfaction with themselves and the results of their activities;</td>
<td>– the student witnessed the extortion of money from a roommate by his classmates;</td>
</tr>
<tr>
<td>– aggressive attitude towards the class teacher, etc.</td>
<td>– the student rented a room and was asked to vacate it within 24 hours;</td>
</tr>
</tbody>
</table>

According to the authors of this method (V.S. Yurkevich, T.V. Khromova [8]), it is important to use “developing comfort” in parallel with “developing discomfort”, in which the individual is supported in overcoming difficulties, receiving a certain reward for solving various kinds of problems. However, the most powerful effect of such a technique is still in the inner satisfaction of the ability to solve a problem, overcome difficulties, and emerge victorious from them.
This method has been used in various classes, since it does not have a rigid binding to the disciplines of a certain cycle, which is undoubtedly considered as its clear advantage. However, it is important to understand that in order to use it in the classroom, the teacher needs to be an active person himself, focused on overcoming various difficulties independently, that is, to be a kind of example for students. Based on the experience of using this method, the authors of this article note that students were particularly attracted to certain situations from the life of the teacher himself, demonstrating his strong-willed qualities, creative thinking, communicative competencies that allowed solving a particular problem, that is, overcoming their own intellectual microcrisis. At the same time, it is still not worth getting particularly carried away with such an experience, so that there is no slipping into “stories from the past”, the memoirs of the teacher.

The second version of such stories was supposed to be based on the analysis of biographies of famous people who themselves achieved fame, respect, material prosperity, and so on. The Internet presents many similar stories from the lives of famous athletes, actors, entrepreneurs, inventors, both of time and of past centuries. Here, too, the teacher can relieve himself of a certain burden by trying to find similar stories in literature and other sources. The students themselves prepared and presented reports on the lives of such people, focusing on their past, on the chosen method of solving the problem, which they used in order to achieve what they wanted. The most effective group analysis of these situations was carried out on the following points:

– if the person achieved what he wanted on his own or used someone else’s help;
– how strong were his urges to get what he wanted;
– how accurately were the goals formulated;
– how environmentally friendly were such goals (moral foundations of the individual);
– how long did it take to get what he (she) wanted;
– what personal and other resources were involved in a particular situation or in life in general (temporary, material, social);
– what qualities did this person possess (both positive and negative);
– what qualities prevented him from achieving what he wanted;
– what qualities of this celebrity would the student himself like to possess in order to be more successful;
– why exactly this person was chosen by the student to present his report.

Among other things, students cited situations of achievements from their own lives, noting when they achieved success in any activity, why they felt a sense of pride in themselves. Such an exchange of similar situations allowed students not only to get to know and understand themselves and their classmate better, but also to gain invaluable experience in a variety of solutions to typical life difficulties for his comprehension and use in such a situation.

Implementing the method of developing discomfort, the teacher in practice tried to make it clear to the future teacher that difficulties only develop a personality, give some important experience that will allow in real situations not to get lost, to come out of them a winner. In this regard, in the process of discussing the results of resolving such situations, the teacher gave a modern understanding of human intelligence, which boils down to the fact that developed intelligence is manifested in the fact that a person is ready for an active full-fledged life in a modern dynamic society. In this regard, it was important to refer to the transformations in modern educational policy, noting that the introduction of federal state educational standards is justified by the state’s need for mobile personalities that increase the economic, social and political status of the state. This gives the future teacher an understanding of the importance and prospects of such pedagogical work with intellectually gifted high school students.
The gnostic-activity stage of the implementation of the model of preparing a future teacher for the implementation of pedagogical support for intellectually gifted high school students included, as at the previous stage, problem lectures, lectures-conferences, seminars with training elements. The designated method of developing discomfort was also used here, including training exercises, various presentations, discussions, a case method and practical exercises. Since at this stage the inclusion of students’ educational practice was carried out, methods such as keeping a diary of educational practice and compiling a report were also used here.

At this stage, two other pedagogical conditions were also connected: 1) the inclusion of the elective course “Intellectual giftedness of a high school student: technology of pedagogical support” in the educational program; 2) mastering the tactics of pedagogical support of intellectually gifted high school students by a future teacher during educational and industrial practice in a secondary school. At this stage, the emphasis is primarily on academic practice, which took place in the first and second year of students’ studies.

First, it is important to consider the implementation of the second pedagogical condition, namely: the inclusion of the elective course “Intellectual giftedness of a high school student: technology of pedagogical support” in the educational program. The optional course program consisted of several topics:

1. The phenomenon of child giftedness. Theoretical approaches to understanding giftedness in various historical epochs, their comparative analysis. The concept of giftedness, the definition of similar concepts: genius, talent, abilities, inclinations. The typology of giftedness. The working concept of giftedness. Modern approaches to understanding the phenomenon of giftedness: are all gifted or are only a few? Children’s giftedness: manifestations, types. Psychology of giftedness.

2. The personality of a gifted child: age-related manifestations of giftedness. Gifted with a harmonious and disharmonious type of development. The communicative sphere of the child’s personality. The emotional sphere of the personality of a gifted child. Volitional processes in a gifted child. The motivational sphere of the personality of a gifted child. Self-esteem and behavior of a gifted child, etc.


4. The main methods of psychological and pedagogical examination of personality: conversation, observation, questionnaires, questionnaires, experiment, etc. Tests for the study of personal characteristics: the communicative sphere, self-esteem of the individual, the emotional-volitional sphere (anxiety, aggressiveness, emotional state). Tests for the diagnosis of the motivational sphere of the personality of schoolchildren. Features of diagnostics of parents of students, diagnostics of schoolchildren, specifics of diagnostics of teachers. Methods of mathematical statistics in the processing of diagnostic data.

5. Age psychology. Psychological features of high school students: leading age activity, major neoplasms, critical periods. The main typical problems of high school age. Features of interaction between a teacher and a high school student. Psychology of an intellectually gifted high school student: the concept of such giftedness, typical features of personality, educational activity, communication, inclinations, interests in high school age. Criteria for identifying intellectual giftedness in high school age.
6. Technology of pedagogical support: concept, authors-developers, basic concepts and principles. Areas of distribution of pedagogical support: physical, intellectual sphere, communicative sphere, sphere of intra-family relations. Interaction of the teacher with the parents of students within the framework of the technology of pedagogical support. The role of interaction between a psychologist and a teacher in working with gifted high school students. Drawing up individual educational routes for intellectually gifted high school students.

7. The concept of pedagogical support for an intellectually gifted high school student. The specifics of pedagogical support for a high school student with intellectual giftedness. Tactics of pedagogical support. Tactics of assistance: its essence and scope of application. Tactics of protection: features of application, behavior of the teacher in the context of this tactic. Tactics of assistance: its essence and scope of application. Tactics of interaction: features of application with intellectually gifted high school students.

8. Training procedures. Replaying typical situations, difficulties when working with intellectually gifted high school students, their parents and other teachers. Discussion of the experience of interaction in educational practice with high school students, features of identifying high school students with intellectual giftedness. Self-diagnosis of intellectual abilities. The main directions of pedagogical support with intellectually gifted high school students identified in educational practice.

In this study, students developed individual educational routes (IER) in the following stages:

Stage 1. Diagnostics of intellectual giftedness: cognitive sphere, motivation, tracking progress, participation in various intellectual competitions, Olympiads, etc.

Stage 2. Analysis of diagnostic results with the participation of a teacher, a class teacher, a psychologist. Informing parents and other teachers about the results of the diagnosis.

Stage 3. Discussion of options for schemes and methods of drawing up an individual educational route that is accessible, real and understandable for both high school students and other participants in educational relations. Acquaintance of a high school student with the IER plan.

Stage 4. Tracking intermediate results of individual educational routes.

Stage 5. If necessary, its adjustment, summing up and analysis of the implementation of an individual educational route.

4 Conclusion

Thus, in general, it was necessary to reflect in the IER of a high school student his participation in various conferences, intellectual competitions, Olympiads of various levels. It also indicated those electives, elective courses, additional classes that a high school student needed to attend, consultations with parents, seminars for teachers, participation of a high school student in various psychological trainings, class hours, individual counseling of a high school student by a school psychologist or an invited specialist on topical issues of high school student development, etc.

It is also necessary to note one more fundamental point. Upon the internship completion, future teachers had to reflect the entire course of interaction with both intellectually gifted high school students and teachers working with them in a particular educational institution in the diary about its passage and in the practice report. This form of work is aimed at developing the student’s reflexive skills and allows to track the student’s assessment skills independently and in a group discussion.

In this regard, the formation of the future teacher’s readiness to provide pedagogical
support to intellectually gifted high school students includes several stages containing the specified pedagogical conditions. Their application at each stage has no rigid distinctions and differs in certain specifics.

The prospects of research within the framework of this problem can be associated with the expansion of the set of pedagogical conditions that ensure the qualitative preparation of the future teacher for the implementation of pedagogical support for intellectually gifted schoolchildren at the stage of primary and high school education; the development and justification of a system of laws and principles for the formation of teacher readiness for the implementation of pedagogical support for intellectually gifted schoolchildren.

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Young teachers support in the system of additional vocational training of the Republic of Crimea

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Abstract. The importance of the research issue stems from the need to study the current status of development of the regional system of scientific and methodological support for young teachers. The article is intended to describe comprehensive study results and the analyses of the current state of the system of scientific and methodological support for young teachers. The research problem is justified by the contradictions between the need for continuing education of a young teacher on the basis of current studies in education and psychology and the lack of current research outcomes incorporation into the process of methodological support for teachers, as well as between traditional methods of training service working and increasing complexity of methodological support for staff training in the context of the reform of educational system. The research has been conducted to analyze current state of the system of scientific and methodological support for young teachers in the Republic of Crimea. The main methods of research were theoretical ones, which show the picture of development of the regional system of scientific and methodological support for young teachers. The article presents the results of the analysis of the current state of the system of scientific and methodological support for young teachers. The collected data showed the need for gradual and logically organized development of the regional system of scientific and methodological support for young teachers. The study findings seek to solve the followings problems in future: scientific and methodological support for young teachers in context of digital learning environment introduction in a school, scientific and methodological support for young teachers while their developing of an effective road map of continuing education, development and implementation of teaching materials to help young specialists.

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Keywords: young teachers, scientific and methodological support, regional system of scientific and methodological support for teachers and managers, the Republic of Crimea.

1 Introduction

General education system of the Russian Federation (RF) is undergoing a process of reform that leads to the modern school education renewal based on new pedagogical bases. Practical implementation of the goals and objectives of the modern education is a task of young teachers who are acquiring innovative competency and are able to learn throughout life. Hence it is important to solve the problem of scientific and methodological support for teachers, as well as young specialists.

The legal basis for organization of scientific and methodological support for teachers in Russia is the decree of the President of the RF No.474 of July 21, 2020 “On the national development goals of the Russian Federation for the period up to 2030” [1], basic principles of the national system of the career development opportunities for teaching staff of the RF including national system of teacher growth approved by the decree of the Government of the RF No.3273-p of December 31, 2019 (amended by the Decree of the Government of the RF No.2580-p of October 7, 2020) [2].

The National Project “Education” [3] and the Federal Project “Modern School” [4] regulate the development of the unified federal system of scientific and methodological support for teachers and managers in Russia, as well as functioning of continuing professional development centers. The role and place of the regional system of continuing education of teachers is defined by the Concept of development of the unified federal system of scientific and methodological support for teachers and managers [5], whereas information and methodological support in developing a regional system of scientific and methodological support for teachers and managers is provided by guidelines [6].

The regional system of advanced skills training and retraining of teachers in the Republic of Crimea is represented by the activity of the State Budgetary Educational Institution of Additional Vocational Education “Crimean Republican Institute of Postgraduate Pedagogical Education” (hereafter the CRIPPE) including all its organizational units. The CRIPPE, among other activities, supports young teachers in the education system of the Republic of Crimea.

Modern psychological and pedagogical literature addresses the problem of scientific and methodological support for young teachers from the standpoint of: mentorship, pedagogical conditions for professional development of young teachers, teaching support for a young teacher in the municipal educational system, formation of an individual teaching style of a young teacher, adaptation problems and difficulties faced by young specialists, problems of young teachers training who are ready for innovation activity. Glebova Z.V. studies the issue of comprehensive support of professional activity of a young teacher in a university complex [7]. Loginova N.F. investigates the problem of psychological and pedagogical competence formation of a young teacher with the help of regional educational system [8]. Tatarnikova A.A., Notova S.V., Podosenova I.A. discuss the main principles of the implementation of additional vocational education (AVE) as a part of continuing vocational education in the RF at the beginning of the XXI century [9, 10]. Lobazova O.F. examines factors of the development of AVE in the Russian educational service market [11]. Russian researchers Galikhano M.F., Kondratyev V.V., Elizarov D.V., Miftakhutdinova L.T. study the system of AVE of a university as a platform for implementation of the Federal Project “New Opportunities for Everyone” [12].

The relevance of establishing a regional system of scientific and methodological support for teachers is determined by the importance of supporting young teachers who are able to
solve the problems of national and regional educational policy, which is made possible through continuous variable targeted assistance in scientific and methodological support.

The research problem is to examine the existing experience of methodological support for young teachers and prospects for further development of a regional system of scientific and methodological support for teachers, including young ones.

The purpose of the research is to analyze the current state of development of scientific and methodological support for young teachers of the Republic of Crimea (using the CRIPPE activity as an example).

The following tasks are set in accordance with the purpose of the research:

1) to analyze the current state of development of scientific and methodological support for young teachers in the Republic of Crimea;
2) to define the main directions for the CRIPPE activities in the sphere of supporting young specialists;
3) to predict the prospects for the development of the system of scientific and methodological support for young teachers.

The scientific originality of the research lies in the fact that the current state of development of the system of scientific and methodological support for young teachers of the Republic of Crimea is analyzed for the first time.

The first part of the article describes the relevance of the research, and the goals and objectives of the study are set. The second part presents the methods used to conduct the research. The third part summarizes the results of the study. The fourth part provides analysis of the results obtained. Conclusions are drawn, as well as possible options for scientific and methodological support for young teachers of the Republic of Crimea (on the basis of the CRIPPE) are predicted in the fifth part. References are given in the sixth part.

2 Materials and Methods

The following research methods were used: theoretical methods – analysis, synthesis, systematization which provided an opportunity to analyze the current state of the development of the regional system of scientific and methodological support for young teachers; content analysis of the legal framework and reports made it possible to visualize the CRIPPE activities in supporting young teachers; prognostic methods – to synthesize findings in order to predict the development of the regional system of scientific and methodological support for teachers, and in particular, young ones.

3 Results

Labour Code of the RF does not provide for a clear definition of the term “young specialist” [13]. In our view, the term “young specialist” means a member of educational system under the age of 30 with bachelor’s, specialist’s, master’s degree or with secondary vocational education applying for a job for the first time and / or having less than three years of work experience in the education system.

We selected a sample showing the number of young teachers of the total number of teachers receiving scientific and methodological support from methodologists and the teaching staff of the CRIPPE for the years 2019-2021. The relevant data are presented in table 1.

<table>
<thead>
<tr>
<th>№</th>
<th>Year</th>
<th>Age / The number of people</th>
<th>Total number of people</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>under the age of 25</td>
<td>under the age of 25-29</td>
</tr>
</tbody>
</table>

Table 1. The number of young specialists receiving scientific and methodological support (Drawn up by the authors).
The results in table 1 show that 516 young teachers under the age of 25 and 1,102 teachers under the age of 25-29 received scientific and methodological support in 2019 in the CRIPPE, which accounted for 5.6% and 11.9% of the total number of teachers, respectively. In general, 1.618 people (17.5%) of the total number of teachers (9,268 people) received scientific and methodological support. 1,039 (10.7%) of young teachers of the total number of teachers (9,722) received scientific and methodological support in 2020: 216 people (2.2%) were under the age of 25 and 823 people (8.5%) were under the age of 25-29. 10,158 teachers received scientific and methodological support in 2021, 366 (3.6%) young teachers of them were ones under the age of 25, and 963 (9.5%) people were under the age of 25-29, which accounted for 1,329 people (13.1%). Thus, 29,148 teachers in the Republic of Crimea have received scientific and methodological support for the last three years, 3,986 (13.7%) of them were young teachers.

We have analyzed the current state of development of the regional system of support for teachers, including young teachers.

In the Republic of Crimea, the road map of development of the regional system of scientific and methodological support for teachers and managers is approved [14]. The road map provides for series of activities aimed at establishing and operation of the Center for Continuous Professional Development (hereafter the Center) as a structural unit of the CRIPPE [15]. The priority activity for the development of the regional system of scientific and methodological support for teachers and managers is to build a unified regional system for the professional development of teachers and managers, as well as tutor support for their individual educational routes created on the basis of the diagnosis of professional deficits [16].

Information on the level of professional competencies and professional deficits of teachers, including young teachers, was obtained via external evaluation procedures, diagnostics of teachers using supplementary in-service training programs (SITP), monitoring activities of municipal training services, and operation of enforcement authorities. The analysis of the results allows arranging scientific and methodological support for young teachers.

There is a “School of Young Teachers” in the CRIPPE as well, which is functioning as a part of the system of scientific and methodological support. The aim of the school is to reveal teaching aspects of difficult for teaching themes [17].

Scientific and methodological support for young teachers is also implemented via SITP. Table 2 shows the results of in-service training in the CRIPPE in 2020-2021.

<table>
<thead>
<tr>
<th>The results of in-service training</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of people taking part in the in-service training</td>
<td>All forms of education</td>
<td>12425</td>
</tr>
<tr>
<td>Implementation of targeted SITP</td>
<td>Implemented SITP</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Number of people who took part in the in-service training</td>
<td>389</td>
</tr>
<tr>
<td>Implemented SITP</td>
<td>For teachers</td>
<td>192</td>
</tr>
</tbody>
</table>

The results in table 2 show that there were 12,425 people in 2020 and 9,477 people in 2021, including young specialists of all forms of education, who took part in the SITP in the CRIPPE. 14 targeted SITPs were implemented in 2020, in which 389 people took part.
In 2021, the number of such implemented programs increased 2.3 times and accounted for 32 programs, in which 1,360 people took part. It is 3.5 times more than in 2020. The number of implemented SITPs was 192 in 2020 and 264 programs in 2021, which is 1.3 times more compared to the previous year. Thus, in-service training is a sought-after type of scientific and methodological support for teachers, including young ones.

Scientific and methodological support for young teachers is also represented by the activity of the Assembly of Teachers of General Education Establishments in the Republic of Crimea (hereafter the Assembly) [18]. The aim of the Assembly is to improve the quality of education in the Republic of Crimea through the development of a system of methodological support with the help of practicing teachers.

Since 2019, the CRPPE specialists have been carrying out an educational audit through networking with the regions of Crimea to identify and overcome professional deficits of teachers in general education establishments in the Republic of Crimea. Based on the results of the diagnostics, instructional guidelines are being developed to overcome the identified professional deficits of teachers.

4 Discussion

Review of the literature indicates lack of research on scientific and methodological support for young teachers in the regional system of additional vocational training in the Republic of Crimea.

Our research has shown the main areas of the scientific and methodological support for young teachers in the Republic of Crimea in 2019-2021. The following areas were identified: operation of the regional Center for Continuous Professional Development; diagnostics of professional deficits of young teachers; operation of the “School of Young Teachers”; supplementary in-service training programs implementation; operation of the Assembly of Teachers of General Education Establishments in the Republic of Crimea; educational audit through networking with the regions of Crimea.

5 Conclusion

Therefore, development of a regional system of scientific and methodological support for teachers, including young specialists, is an integral part of AVE. The carried out analysis shows that the regional system of support for teachers, including young ones, is being actively developed within the Concept of development of the unified federal system of scientific and methodological support for teachers and managers. The process of developing of the scientific and methodological support system is complicated, multifaceted, and essential in the current circumstances. However, the process should proceed in stages, and with excellent logistics.

In carrying out the research, we encountered several problems which should be solved in a new and non-standard way while developing the regional system of scientific and methodological support for teachers. Among these problems there are: scientific and methodological support for young teachers in context of digital learning environment introduction in a school, scientific and methodological support for young teachers while their developing of an effective road map of continuing education, development and implementation of teaching materials to help young specialists.

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Facet technology as a tool for the design activity of an informatics teacher

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Abstract. The development of the professional skills of a teacher in modern conditions is ensured by the practical use of the possibilities of innovative IT technologies. The research problem is to search for digital technologies, the didactic capabilities of which make it possible to solve effectively pedagogical problems, in particular, the issue of constructing sets of tasks in computer science. The purpose of the study is to develop a technology for constructing new educational problems based on facet classification. In the course of the study, the method of analysis of pedagogical and methodological literature on the development of the digital competence of the teacher and the design of tasks, as well as the method of generalization of pedagogical experience in the use of innovative digital technologies were used. On the basis of the defined didactic features of the faceted classification, a technology for constructing text problems in informatics is proposed, including conceptual, methodological, control and evaluation modules and a software module. The procedure for constructing facet formulas of problems is defined, and corresponding examples are given. Questioning of informatics teachers of the Krasnodar Territory was conducted, which revealed their readiness to use the faceted technology for constructing educational tasks. It is concluded that the use of faceted technology for the implementation of pedagogical activities, the design of new educational and control and evaluation materials expands the professional skills of computer science teachers, and, therefore, the corresponding technology can be included in the content of teacher training.

Keywords: digital didactic technologies, designing sets of educational problems, faceted classification

1 Introduction

The development of the digital competence of an informatics teacher implies the integration of didactic techniques and methods of teaching informatics with the possibilities of digital technologies, which make it possible to intensify the educational process, providing an individualized approach to teaching, increasing motivation to learn new things, and enhancing the cognitive and research activity of students. One of the types of pedagogical

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activity is the activity of constructing new educational tasks. Despite a sufficient number of different problem books, including computer science, the teacher needs to create his own educational problems. This is due to the realization of the creative potential of the teacher, the development of copyright materials, the need for a large number of tasks of the same type for the control of knowledge. Sufficient attention in the psychological, pedagogical and methodological literature is paid to the issue of constructing educational tasks. V.P. Radchenko [1], A.V. Buslaev [2] define the fundamental principles for constructing sets of educational problems, single out the goals and criteria for selecting tasks, putting forward the individualization and differentiation of learning, uniformity and diversity in the first place. However, the construction of sets of educational tasks at a professional level involves the automation of the design process, the use of intelligent information technologies. The problem of digitalization of education, the theoretical foundations for the formation of a teacher's digital competence, the principles of creating a digital educational environment and providing a modern teacher with innovative digital tools are the subject of the works of such researchers as D. Belshaw [3], S.A. Beshenkov [4, 5], T.A. Boronenko [6-8], T.G. Vezirov [9], N.A. Galchenko [10], I.V. Robert [11, 12].

A method for classifying tasks and structuring their individual elements should be chosen to solve the problem of effectively constructing sets of new educational problems. Sh.R. Ranganathan [13] proposed the faceted classification for this purpose. The classification is based on the combination of several classifications made according to various criteria; the learning task is characterized by the intersection of classification features – a facet formula. A facet attribute is a classification attribute, on the basis of which subgroups are distinguished and facets and facet sets are built.

The variability of compiling classification features into a single faceted formula is the main advantage of the faceted classification, which gives it the property of flexibility. The classification formula can be modified without modifying the system of selected features. The use of faceted classification in the construction of problems in mathematics and physics is described in the works of A.I. Arkhipova and S.P. Grushovsky [14]. The study deals with facet tests, which are a specific form of generalized tasks with numerous modifications. However, a number of specific features of informatics do not allow using the facet test in full. The very concept of a test implies the presence of answer options, which cannot be done when solving text problems in computer science and programming problems, since the solution to the problem is an algorithm in some programming language or the problems have several correct solutions.

There is a contradiction between the existing didactic possibilities of facet classification and their insufficiently wide application in the design of educational tasks in computer science. This contradiction led to the research problem: finding a way to apply faceted classification to the construction of sets of problems in computer science. The purpose of the study: to develop a technology for constructing educational tasks based on facet classification. Research hypothesis: the activity of teachers in designing tasks in computer science will be more effective if facet classification is used in its implementation. The objectives of the study are defined: to reveal the didactic possibilities of facet classification; to develop and substantiate the technology for constructing sets of educational tasks in informatics based on facet classification; experimentally substantiate the applicability of the developed technology in the professional activities of computer science teachers. The scientific novelty of the research lies in the extension of the scope of facet classification to the construction of text problems in computer science.
2 Materials and methods

A problem in computer science can be considered as a special kind of problem where mutable elements and base words are defined. By analogy with the process of constructing a faceted classification, the values of the variable elements correspond to the faceted features while the base words form the basis of the problem and determine the faceted formula. The process of designing new educational problems based on faceted classification will be called the faceted technology of task design. As a result of applying the technology, faceted formulas of educational problems are created, sets of different types of tasks corresponding to them are generated, and appropriate templates are selected to check the solutions.

The faceted technology for constructing educational problems is presented by the authors in the form of a sequence of modules. The conceptual module contains the goal of design, which is to develop professional skills by mastering ways to create new educational problems, developing skills for interacting with digital technologies, developing skills in using software services to develop computer educational materials; principles of facet classification and structuring; digital technologies that provide automation of task design [15].

The methodological module includes a design procedure – a sequence of steps leading to the construction of facet formulas and problems, contains methodological recommendations for designing problems, examples of using the facet classification of problems in various disciplines. The design procedure contains the following steps: selection of a section of an academic discipline; structuring of educational material and formalization of educational tasks; selection of a certain type of educational problems of similar structure and aimed at the formation of the same skills; definition of variable task elements (facet features) and their possible values; selection of basic words in the structure of tasks; construction of the facet formula of the problem.

The components of the software module use various digital technologies and services. Automation of the construction of tasks can perform at different levels. In the simplest case, these are Microsoft Office tools (text editor and spreadsheets), which can be used to store sets of base words, facet values, sets of facet formulas. At a higher automation level, the module components include a database containing a set of syntactic constructs; a set of facet formulas on a specific topic; rules for filling in facet formulas that take into account the agreement of words in a sentence; formula constructor.

The control-evaluation module is necessary to check the formation of the ability to design educational problems using facet technology. The ability to apply the acquired knowledge in professional activities is determined; awareness of the importance of acquired skills for professional activities. The module includes materials for current control and intermediate certification.

Consider the example of a faceted formula for an educational problem in computer science.

\{F1\} consists of non-negative integers.
Define \{F2\} pairs of elements in which \{F3\} elements are \{F4\}.
Here \{F1\} is a facet attribute of the data structure (file, array);
\{F2\} is a facet attribute of the result (quantity, sum, product);
\{F3\} is facet attribute of quantity (at least one of the two, both);
\{F4\} – facet attribute of the element property (even, odd, multiple of a given number, more than a given number).

Using the above formula, many different problems can be obtained. For example:
1) The array consists of non-negative integers. Determine the number of pairs of elements in which at least one of the two elements is greater than 20.

2) The file consists of non-negative integers. Determine the product of pairs of elements in which at least one of the two elements is a multiple of 5.

3) The array consists of non-negative integers. Determine the sum of pairs of elements in which both elements are even.

### 3 Results

The study of the attitude of ICT teachers to the use of faceted technology in design activities was carried out on the basis of the Institute for the Development of Education in the Krasnodar Territory, 102 teachers participated in the survey. The first block of the questionnaire included questions of a general nature: work experience, level of knowledge of IT technologies, frequency of inclusion of new digital technologies in pedagogical activity, a list of digital technologies used in pedagogical practice. The second set of questions revealed the attitude of teachers to the faceted technology of constructing educational tasks and their readiness to include it in the educational process (Figure 1).

![Survey results](image)

**Fig. 1.** Survey results (Compiled by the authors).

Most of the respondents noted that in order to control knowledge, there is a need to form new sets of the same type of educational problems at different levels (90%). As part of advanced training, teachers were trained in the faceted technology of constructing educational problems and they generally indicated that they had no difficulty in mastering this technology (84%). Teachers noted the usefulness of the provided facet formulas for computer science tasks, the convenience of their application in practice, and easy adaptation to their own problems (89%). Using the provided teaching materials, teachers created their own sets of faceted formulas and generated new educational problems using Microsoft Excel program modules and macros. The respondents noted that the generated sets of tasks...
in informatics had completeness and different levels, they made it possible to design large sets of tasks of the same type (90%). The proposed automation method caused minimal difficulties, 78% agreed with the possibility of its application.

4 Discussion

The study revealed the didactic features of facet classification, namely, the ability to structure educational problems and their individual elements, partial or complete automation of the design process, generation of sets of educational problems that provide an individual learning path, stimulation of structuring skills, analysis and information retrieval. The results of theoretical work and analysis of the survey data showed that familiarization with the faceted technology for designing tasks for the ICT teachers is in demand, because it allows creating conditions for realizing the creative potential of teachers to improve educational material, expands the range of educational problems and projects in informatics for schoolchildren, and provides automation of knowledge control and analysis of results. The use of the proposed technology makes it possible to develop the teacher’s professional skills, provides him with new tools for both the digitalization of the educational process and the expansion of the field of educational activity. Faceted technology expands the scope of faceted classification and makes it possible to generate not only test tasks, but also full-fledged text educational problems that require a detailed answer.

5 Conclusion

The willingness of the ICT teachers to use faceted technology in their professional activities, revealed as a result of the survey, suggests the possibility of including the proposed technology in the content of professional training of informatics teachers. Faceted technology can be an effective tool for the teacher’s design activities, contributing to creation of the tasks that meet the principles of different levels and uniformity. The developed sets of tasks in computer science and the corresponding faceted formulas can be used by teachers in practical work in secondary and higher schools, as well as in the system of advanced training. Prospects for further development of the research are related to the expansion of the subject area to other academic subjects.

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dication and makes it possible to generate not on fi

cultures, 78% agreed with the possibility of its application.

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Comparative studies in the research methodology system of the national literature history

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Abstract. Comparative literary studies have remained one of the basic methodological approaches to the analysis of national literary texts since the second half of the 20th century. At the same time, the phenomenon of a literary text allows us to assume that reliance only on comparative methodology, that is, an attempt to deduce certain genetic patterns and systemic connections, limits the possibilities of a complete comprehension of the inner meanings inherent in the creative potential of the author of the text. Modern literary experiences, obvious genre and style transformations deny the established ideas about the specifics of a literary text, and accordingly require revision of the classical methods of its analysis. In connection with this statement, we note the formation in modern literary criticism of new methodologies, in particular, a synergetic paradigm, comparative imagology and intertextuality, within which the text is considered as an open system that has its own internal laws of development, which is in a state of constant exchange with the external environment. The purpose of this article is to determine the productivity of comparative methodology and to identify directions for expanding the methodological apparatus of modern national literary criticism. The author believes that the need to develop an interdisciplinary approach for a comprehensive literary interpretation of a literary text is obvious. Prose works of contemporary national authors serve a material to illustrate certain provisions.

Keywords: comparative studies, North Caucasian literature, synergetics, imagology, literary text, text structure, internal meanings, subtext, intertextuality

1 Introduction

Modern fine literature in its search is significantly ahead of the development of literary science. Genre uncertainty, hypertextuality, intertextuality, stylistic eclecticism and many other phenomena in literary read today are difficult to analyze from the standpoint of

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classical literary criticism. This trend is noted by R.F. Bekmetov: “According to many observations in literary and art work, there is a number of heterogeneous phenomena, which, while remaining within the framework of the adopted epistemological tradition, is no longer possible, and if possible, the result will always be incomplete, fragmentary and indefinite. The category of such phenomena can be attributed to situations of seemingly random, outwardly not motivated convergence of images in the creative heritage of writers belonging to different national worlds” [1].

There is an obvious need to update the analytical apparatus and methodological approaches. This problem gives rise to numerous discussions in professional circles, as a result of which several directions for finding its solution have been formed. The reference point of the problem is the obviousness of the dominance of comparative historical literary criticism, the main provisions of which were formed in domestic science by the author of “Historical Poetics” A.N. Veselovskiy, with individual cases of attracting postmodern and synergetic models of analysis. Note that the work of the Russian scientist has already indicated the productivity of the combination of the comparative historical approach and the appeal to the poetics of the text. In modern North Caucasian literary criticism, with a clear tendency of writers to complicate the form of the text, of linguistic and stylistic experiments in the spirit of postmodernism, historical and comparative methodology is preserved. The phenomenon of North Caucasian literatures lies in their so-called new writing, which is due to the socio-historical and cultural characteristics of the development of the “national periphery”. The belated appearance of writing (in comparison with developed geospaces) objectively initiated a period of apprenticeship and, to a certain extent, imitation, in particular, of Russian literature. A significant role was played by the ideological environment of the socialist world order, which persisted for 70 years, largely directing writers to the implementation of the principles of socialist realism and depriving them of the possibility of free creative self-expression. For this period of literary development, comparative studies were the most productive analytical paradigm. A review of literary articles from the Soviet period shows that most of them are aimed at identifying typological and historical links between literary texts. With this approach, the creative individuality is leveled, and the problems of subtext, inner deep meanings, and author’s individuality remain unnoticed. The striving for ordering and systematization inherent in comparative literary studies, first of all, does not allow revealing nonlinear connections between the motives, desires and actions of the characters, as well as in the very structure of the text.

E.A. Stetsenko in his work “A Synergetic Approach to the Study of World Literature” examines the process of interaction between chaos and order in a literary text based on the principles of synergetics and notes their need for modern literary criticism, since “The content and form of the work of art is always determined by one or another artistic method and direction, universal aesthetic laws, the logic of life development and human psychology. Therefore, in relation to the author, the literary text has the undoubted features of an open system and, therefore, is subordinate to its characteristic features” [2]. The very process of changing literary styles and trends from the point of view of comparative historical consideration demonstrates in some cases non-systemic abrupt transitions, protest phenomena, nonlinearity and continuity, such as, for example, the transition from the medieval aesthetic paradigm to the Renaissance. Thus, it can be assumed that the literary process evolves primarily from the interaction of chaos and order. In national literatures, for example, the “conflict-free” period of socialist realism after the 1980s was abruptly replaced by the literature of a new generation of writers with their thirst for truth, authenticity, openness, stylistic and linguistic innovation. Here we can talk about the actualization of authentic historicism and the realization of the creative potential of the North Caucasian
writers, whose individual origin manifested itself primarily through the national picture of the world, archetypal images and ethno-mental representations transmitted by the authors through a subtext that defies comparative analysis.

Note that we are not discussing criticism of literary comparative studies, or the need to abandon this methodology, which in many cases is necessary and, moreover, irreplaceable. We are talking about the objectively due to the renewal of the analytical literary apparatus, the involvement of interdisciplinary methods, including synergetic and postmodern. In the same context, R.F. Bekmetov in his article “Literary comparative studies as methodological problem”, in its turn, puts forward “... the idea of the exhaustion of the classical model of comparative searches and the need to transfer research attention to the so-called synergetic problem of paradigm knowledge” [1]. The researcher identifies the current state of literary criticism as a crisis of methodologies, which include comparative studies, noting that “On the one hand, there emerge comparative and contrastive works dealing with some particular and applied issues of interaction of individual national and literary systems. On the other hand, given an attentive attitude to these works, it is not difficult to identify that the core (“root”) mental paradigm firmly fits into the familiar and well-developed comparative methodology of previous years (in some works, this methodology is actively “intermingled” with the terminological set of postmodern discourse)” [1].

Based on a brief overview of the trends in modern literary criticism, we note that the crisis of the classical paradigm is obvious and language scholars have discussed it since the end of the XX century. This was vividly seen by the content of the Russian-French colloquium “The Transnational History of Comparativism: Contrasting Comparative Literary Studies”, which took place in Moscow at the Institute of World Literature of the Russian Academy of Sciences (2011, 2014). The representatives of domestic and foreign literary criticism considered various angles of the indicated problem, but on the whole could specify the need of formation of new methodological apparatus of literary science by applying interdisciplinary approaches. In general, it was about metacomparativistics. The development of imagology, a separate area of comparative studies aimed at identifying the principles of creation, functioning and interpretation of images of “others”, “aliens”, foreign to the perceiving objects, is of considerable interest in terms of adapting comparative historical literary studies to the study of national literatures. The relevance of this scientific direction is due to the specifics of the national consciousness of bilinguals, in particular, North Caucasian writers, the picture of the world contains concepts (heterogeneous and diverse mental and sign structures found in different spheres of culture and science) and mental codes of at least two cultures.

2 Materials and methods

The purpose of this work is to analyze the methodological apparatus of modern North Caucasian literary criticism, in which, as we noted, the most common methods and techniques of comparative literary criticism are comparative and contrastive-typological.

Let us consider the main methods that we have selected as analytical tools that are relevant for modern literature.

Synergetics is interdisciplinary in nature, and its approaches are revealed in all branches of humanitarian knowledge. “The systemic-synergetic approach to literature reveals the appearance of emergent properties in the “literature” system. An emergent property is a new property of system elements that they have not previously (outside the system) possessed and which appears in large (complex) systems. The emergent property is inherent not only in the elements of systems, but also in the systems themselves. The emergent property of the system is manifested in the abruptness of the system formation in the course of its
self-organization and in the abruptness of changes in the system during its self-development” [2].

Of considerable interest in terms of expanding the boundaries of comparative methodology is the intertextual understanding of comparative studies by the modern Austrian literary critic Zoran Konstantinovich. The scientist believes that the new approach implies, first of all, going beyond the “verbal boundaries”, studying equally the categories of the author and the reader. Modern comparative studies cannot be limited to one text of one author, but seeks to cover all texts that are “condensed” (abgespeichert) in the text under study. In this case, the text is considered as a “palimpsest”, that is, a conversation with all other texts with which “they” (both the author and the text) came in contact during their life. Z. Konstantinovich is interested in “correlations” of various signs and codes that arise when different cultures come into contact. By connecting to the analysis all “areas of life” (unter Einbezug aller Bereiche des Lebens), comparative studies, in his opinion, deal with the changes in the consciousness of people caused by the interaction of different cultures. In this position, the opinions of literary scholars diverge, many remain with the opinion that the text is unrepresentative, other researchers adhering to the positions of synergetics, thanks to their approach to literature as a system, believe that “... different links of this system, having different functions, should acquire their own language of description. Direct and feedback, making the system of literature fundamentally open, “remove” the question of having only one possible language of description” [3]. Here we have indicated one more direction for updating the comparative methodology.

Synergetics is largely based on the systems theory of the Belgian physicist I. Prigogine. To explain the multiple processes, the scientist actualized the concept of chaos, which, in his opinion, is more productive for understanding the world than order. On the whole, I. Prigogine formulates an original concept of nature, according to which “formation and event do not exist separately, probabilistic laws lead to the creation of a “picture of an open world” in which new possibilities come into play at every moment” [4]. Based on the systemic nature of literature (literary genres, system of images, plot structure, etc.), it is quite understandable that when it is studied as a complex dynamic, open, unstable system that is constantly in a state of transition from chaos to order and from order to chaos, a systemic-synergetic approach can be used. “The synergetic approach allows us to explore the semantic aspect of the relationship of the “literature” system with numerous contexts, with own environment” [3].

We consider imagology to be the next methodological direction that is relevant for modern North Caucasian literary criticism. As noted by E.E. Ryabchikova, “National images, identity and ethnic stereotypes in the modern world are included in the circle of the most pressing intercultural and interdisciplinary issues. Their description, as well as the determination of the mechanisms of their formation, is dealt with by the interdisciplinary branch of humanitarian knowledge as imagology” [5]. Consequently, the problem of insufficient attention to the national identity of a literary text, which we have identified, can be efficiently solved using the named methodology. The founders of imagology are J.-M. Carré and M.-F. Guillard, who drew attention to the fact that in addition to studying the mutual influence of literatures, it is necessary to identify how the image of the “other” / “alien” is realized in the text through pseudographs, “mirages”, intellectual constructs.

Based on the review of the most resourceful, in our opinion, methodologies for North Caucasian literary criticism, we believe that a complex analytical paradigm combining a comparative approach (including imagology) and methods of synergetics and intertextual analysis, due to its interdisciplinary nature, will allow us to consider modern texts in the entirety of their system characteristics.
3 Results

The way of expanding the methodological toolkit of North Caucasian literary criticism means to us involving the methods of synergetics, comparative imagology and intertextual analysis. We note that the postmodernist model of analysis, based on the theories of poststructuralism and deconstructivism, did not become popular among national literary critics, despite the fact that a number of North Caucasian writers reveal tendencies towards postmodernist style (N. Kuek, J. Koshubaev, T. Kibirov, A. Kaidanov, S. Kabaloti, and others). This fact is explained by the insufficient popularization of postmodern concepts, despite the fact that the theory of intertextual analysis is extremely important for national literatures, in which various cultural codes, concepts, archetypes, mythologemes and other manifestations of the “foreign” word interact. We also note that many typologically similar text structures, previously interpreted as borrowings, today in modern literature are interpreted as intertextual fragments and, accordingly, receive a different semantic content.

In the North Caucasian literature after the 80s of the XX century, the historical theme has been actualized. This is due to the lifting of censorship bans on certain topics and the opening of access to documents that were closed during the period of Soviet totalitarianism. The writers got the opportunity to talk openly about the events of the Caucasian War, the mass deportation of the North Caucasian peoples, and the first and second Chechen wars. A distinctive feature of the formed stylistic trend, which we have defined in our works as event-chronicle prose, is the synthesis of the literary and documentary principles with the predominance of one of the discourses. As we noted in our dissertation research “North Caucasian historical event-chronicle prose of the XX century: genre, structural-style features and typological connections with Russian literature” (2021), in event-chronicle prose “documentary is expressed in multiple forms and author’s techniques, as for example, direct inclusion of documents, quotations, chronicles, notes, memories of real persons and other non-fiction materials into the literary text. In fact, such foreign-style fragments in the theory of literature are interpreted as intertext” [6], which requires a special methodology of literary interpretation, in particular, intertextual comparative studies [7].

Note that the document has always been present in fiction as an auxiliary component that emphasizes the reliability of the events described, therefore, this synthesis can be considered in a comparative way. But in recent decades, the documentary sense begins to perform essential meaning-forming functions in the text, it even sometimes dominates (the phenomenon of non-fiction prose is indicative here) and, due to its functional load, acquires signs of artistic imagery, in some cases exerting a greater emotional impact on the reader than the most colorful literary images. Obviously, the transformations we have named can be comprehensively investigated through interdisciplinary methodology, in particular, synergistic techniques.

The image has always been the central fulcrum in a literary text. For event-chronicled prose, it is typical to show several national worlds, mainly opposing ones: in the works dedicated to the Caucasian War, opposition is built between representatives of tsarism and the mountain peoples; in texts on deportation – of migrants and indigenous people; in prose about the Chechen wars – of Chechens and representatives of the Russian authorities. It is possible that everyone has their own truth, which is transmitted through the motives of actions, the interweaving of destinies, internal monologues and dialogues. The author has multiple possibilities for realizing the main idea – both open, which are easily read by the
reader, and hidden, going through the subtext. Obviously, such texts cannot be literary interpreted comprehensively from the standpoint of classical models of comparative studies and contrast-typological analysis, and it is necessary to use the methods we have designated as promising, in particular, imagology. Let us dwell on certain provisions of the theory of national images of D.-H. Pageaux, who focused on the interdisciplinary nature of comparative imagology, interacting with other sciences such as ethnology, anthropology, sociology, history. The French literary critic formulated a three-level scheme for studying the image of the “other” in the text: “firstly, it is necessary to identify the binary oppositions of the text that underlie the representation of the national (‘I’-the narrator is the native culture and the “he”-character is the culture being represented); secondly, to carry out a linguistic analysis of the text, statistically processing the data; thirdly, to consider the obtained data in the historical and cultural context” [8]. Pageaux D.-H. proposes to compare the data of structural analysis with the political, cultural, social contexts of the imagological text. He distinguishes four levels of consideration of the national image: 1) typical features of the image and their functioning in the studied text; 2) sociocultural norms (force of culture); 3) cultural models that served as the basis for creating an image; 4) a code that allows readers to recognize the image, or, conversely, depriving the imaginative power of an element of the image [3]. The second and fourth levels of interpretation of the national image are impracticable without a detailed historical analysis.

Taking into account the specificity of cultural ties, D.-H. Pageaux typologizes the forms of perception of the national image. For the North-Caucasian literary criticism, the following provisions are most interesting:

1. Another culture can be considered by the writer as superior in relation to the native national culture. For example, during the formation of the North Caucasian newly written literature, imitation of Russian and Soviet literature was clearly manifested, and the images of the characters of Russian nationality were idealized and represented the intelligentsia, party leaders, heroes of the revolution and war, etc. A similar example is given in “Essays on the History of Chechen-Ingush Literature”, where a letter was published, a rebuke from the Chechen writer Khalid Oshaev to the Ossetian writer H.-M. Muguev, the author of the novel “The Wild Terek”, in which the role of the Chechen people in the national liberation struggle against tsarism in the 19th century was belittled in every possible way and the merits of General A.P. Ermolov were aggrandized” [9].

2. Another culture may appear as inferior to the native culture, and such a representation contributes to the increase in the importance of one’s own culture. As an example, we can cite the modern historical texts of a number of North Caucasian writers, which describe the aggressive policy of the Russian authorities in relation to the mountain peoples (the Caucasian and Great Patriotic Wars, the deportation of a number of Caucasian ethnic groups, the Chechen wars, etc.). In the context of revealing a historical tragedy, writers use methods of lowering the moral and ethical positions of Russian characters, often by comparing them with representatives of their native ethnic group. In particular, in Chechen literature, “... the battle of the Chechens against the tsarist army for their freedom has become a separate ideological and thematic direction of event-chronicle prose. The character of the heroic-historical songs “k’anta”, fighting with the princes, here transformed into the image of a fighter against foreign invaders and became the center of the structural model of the works of this thematic group, completely directing the dynamics of the plot” [6]. In works about the Great Patriotic War, the German invaders are shown in an extremely negative way, which, in fact, was characteristic of all Soviet prose and is typical of battle literature.
3. The other culture is viewed by the host as positive: it is a two-way relationship based on mutual respect. A similar interpretation of images is manifested in a number of works about the Great Patriotic War, broadcasting the idea of the consolidation of different peoples in the face of a common enemy (fascism). In the diary entries in 1941-1943 of Effendi Kapiev, the Dagestani, “Passages from the front-line diaries” there is a fragment that is indicative of this type. “Who are you? – A question to a dying, wounded soldier lying by the road. “Russian,” the fighter whispered, and that was his last word. He was, apparently, an Azerbaijani, but he whispered: ‘Russian’ ” [6]. The trend towards a positive display of another culture became actual in the post-perestroika period, when the North Caucasian ethnic groups gained sovereignty and moved with Russia to a different, partner level of relations.

The methodology of synergetics is quite productive for the analysis of works with a centripetal plot development (V.E. Kovsky), with a structure based on editing techniques. For example, in event-chronicled works the author often “includes public speeches, journal essays and other documentary fragments in the narrative, which destroy the classical ideas about the literary monolithic character of the text. ... Editing functions in literature boil down to breaking the continuity of communication, stating random connections between facts, playing with dissonances, intellectualizing a work, rejecting catharsis, “fragmentation” of the world and destruction of natural connections between objects” [6]. Such a disordered and, at first sight, chaotic structural solution undoubtedly expresses a certain author’s strategy (“order” in “chaos”), which can be identified by the interpreter through a synergistic methodology. For example, in E. Kapiev’s notes, “shots replace each other as in a kaleidoscope, the cinematography of the show is created by the method of editing, there is no logical connection between the sketches, but on the whole, an amazing truth about the horror of war is created in its truthfulness and actuality: village residents frozen and petrified in anticipation of execution, an apple tree covered with bees, a woman giving birth, Captain F. Semennoy, who, dying of wounds, ordered to be carried in front of the company, since the soldiers should not go into battle without a commander” [6]. Fragmentary pictures, assembled chaotically, from the first glance, without logical connections, in all their contradictions, create an integral picture of the horror of war. And it is extremely reliable in its chaotic vitality, therefore, it is quite adequate to the synergetic model of analysis.

4 Discussion

Comparative methodology is limited to describing the process of the genesis of literary phenomena in a comparative context. For example, such research topics as the evolution of genre forms, the influence of folklore, the study of a certain literary period, etc. are relevant. Comparative typological studies are concentrated around the issues of interaction between national literature and Russian literature. Much less attention is paid to the problems of the poetics of a literary text, which is interpreted as an open, but multi-level system in terms of form and content, as a deeply individual creative product. This statement is relevant for the North Caucasian literatures, the authors of which are bilingual in their majority, and they are characterized by different semantic worlds, which further define the “border sphere” of their artistic/literary thinking (V. Zusman).

If we adhere to the opinion of K.N. Galay, who believes that “the term ‘comparative studies’ denotes the most general discipline that explores connections, changes, common and different between literatures, the originality of interliterary connections and influences, as well as features of literary development that extend over linguistic boundaries and
determine the originality of literatures. She makes comparisons between national literatures, within one literature, comparing creative individuals, comparing literary phenomena with phenomena from other types of arts, for example, music and painting. Comparative studies are based on a set of comparative methods” [10], it can be assumed that comparative studies genetically have the potential for interdisciplinarity. Let us emphasize that in a situation where the arsenal of literary critics is limited only by comparative methodology, the problems of author’s poetics in the entire totality of its unique manifestations remain uninvolved. The assumption of the interdisciplinary potential of comparative studies gives rise to numerous discussions, the focus of which is due to the insufficient terminological certainty of a number of definitions. For example, in our work we pointed out the productivity of comparative imagology as an analytical model. But not all literary scholars consider it possible to interpret imagology as a comparative trend. V.P. Trykov, in particular, believes that “imagology, in contrast to comparative studies and historical poetics, studies the image of the “Other” (“image” in imagological terminology) not in artistic and aesthetic, but in socio-ideological function. Comparative studies and historical poetics investigate the structure, meaning and poetological, artistic and aesthetic status of the image (including the image of the “Other”) in a literary work, methods of creating an image, its typology in various national literatures. In other words, comparative studies and historical poetics are interested in the image as a creation of poetic consciousness in its artistic and aesthetic originality, multidimensionality and polysemy and connections with tradition, ‘legend’” [11]. V.P. Trykov expresses doubts about the scientific character of imagology, noting the following: “Imagology develops within the framework of the so-called cultural turn in modern Western humanities, the consequence of which is that literary criticism is losing its specificity, is considered as an appendage of culturology, one of the sciences of culture, the general task of which is to understand how certain ideas, concepts, cultural and national identity are constructed in the public consciousness. In this context, literature is considered as one of the tools of social development” [11]. In our opinion, the general attitudes of imagology do not pretend to make literary studies an auxiliary discipline, but offer a special method of considering and analyzing the images of “others” from the standpoint of a cultural approach. This is interdisciplinarity, and if we take into account that literature is a part of national culture and transmits cultural codes and mental representations through its figurative system, then the involvement of imagology is quite logical. Here are other points of view: O. Yu. Polyakov and O. A. Polyakova, the authors of the survey on imagology, argue that this is a scientific direction that “relies on the entire toolkit of literary criticism, uses poetological analysis, narratological strategies, mythopoetic approaches, etc.”, and state that “At present, the prospects of the new scientific discipline are beyond doubt” [12]. H. Dizerink, back in 1966, “concretized the basic concepts and tasks of imagology as a branch of comparative studies, which deals with the study of images of another country, peoples, culture in literature” [13]. French researcher D.-H. Pageaux in turn, “emphasized the interdisciplinary nature of research in the mainstream of imagology, through which comparative studies expands its field and interacts with other sciences: ethnology, anthropology, sociology, history” [8]. J. Leerssen characterizes imagology as a literary discipline. The scientist claims that this science studies ethnotypes, by which he understands “stereotyped ideas about the national character” [14], and notes that “imagologists are especially interested in the relationship between those images that characterize Others (heteroimages) and those that characterize their own, national identity (the image of their own “I”, or autoimage)” [15]. In our opinion, in the problem space of defining imagology, the point of view of E.E. Ryabchikova, is rather substantiated. She asserts that “Imagology contains the potential for development at the
expense of many, but not yet fully resolved questions: whether it studies only the images of “others” – or is it also the study of images of “ours”; about the literary centrality of images, on the one hand, and their interdisciplinary horizon, on the other; about the meaning of text, context and intertext in the study of images, about their frame structure, about the problem field of meta-images” [5].

It should be noted that with all the different polarity of opinions about comparative studies, scientists are unanimous that it is necessary to update it and expand the methods and techniques for analyzing a literary text, as, for example, the authors of the study “Methods of studying literature. From a systematic approach to a synergetic paradigm” V.G. Zinchenko, V.G. Zusman and Z.I. Kirnoze, who note that “in the XX century, in the era of strengthening interethnic contacts and growing globalization, a new phase of comparative studies emerges” [3]. They believe that this is mainly due to the popularity of the concepts of intertextuality, in the interpretation of which the “alien” word is explained by other author’s strategies than just genetic and typological connections [3]. Thus, the question of the need for intertextual methodologies causes less discussion, since they are sufficiently developed and they are undoubtedly referred to as literary science. The concept itself is a problematic issue. I. Shaitanov in his work “The Triad of Modern Comparative Studies: Globalization – Intertext – Dialogue of Cultures” notes that the term intertextuality, introduced into scientific circulation by J. Kristeva, initially echoed Bakhtin’s dialogism and did not have the function of establishing the sources of “someone else’s word”, how it happens in most modern literary studies [16]. J. Kristeva herself explained the rejection of the term as follows: “The term “intertextuality” means the transition (transposition) of one (or several) sign systems into another; but since this term is often understood in the banal sense of “studying the sources”, then I prefer another term – transposition ...” [17]. Both strategies can be found in Russian literary criticism. In our opinion, the clarification of the sources of borrowing does not have much value in terms of analyzing deep meanings, and the greatest interest for “reading” multi-level works is the interpretation of the process of “transition from one sign system to another”, which was identified and described by M. Bakhtin in his theories dialogism and polyphony.

5 Conclusion

The purpose of our study was to identify the relevance of comparative studies in the field of modern, including North Caucasian literary criticism. Based on an analytical review of the points of view of Russian and foreign scientists, we identified a common opinion on the need to update and expand the methodological apparatus of the classical model of comparative studies. The productivity and fundamentality of comparative historical literary criticism in the process of diachronic study of literary processes is undeniable, and most studies of dynamic processes in literature are based precisely on comparative methodology. At the same time, a number of issues of the poetics of a literary text may not be covered due to transformational processes in the structure, genre system, style, language of modern literature. We have identified a situation of certain conservatism in North Caucasian literary criticism, the methodology of which lags far behind literary innovations. These phenomena are noted by a number of North Caucasian literary critics, in particular M.A. Khakuasheva notes: “In the post-Soviet period, the literary process of the Adyghe literature ceased to be a purely local phenomenon, the conditions of globalization determined its integration with the world literary process. In the 1990s and 2000s, at this time, Russian-language prose received a new impetus for development, which determined a qualitatively new level of the literary process in Adygea, KCR, KBR. It has developed at this stage as a significant
aesthetic phenomenon. The need for adequate analysis and scientific research in this area is dictated by the poor degree of knowledge of the problem, the lack of a holistic conceptual approach, scientific definitions” [18].

Based on the abovementioned, it can be stated that there is a need for the formation of a new comparative paradigm based on the principles of interdisciplinarity. The specificity of national literature in a situation of bilingualism suggests that the methods and techniques of synergetics are quite efficient for the analysis of several mental structures, immanently and explicitly transmitted through the text of a bilingual writer. In the same respect, imagology and the methodology of intertextual analysis are of considerable practical interest.

In our study, an idea has been outlined that requires more detailed consideration. This is the question of postmodern literary criticism, which at the moment practically does not develop in the North Caucasian literature, despite the fact that writers are increasingly showing interest in postmodern style. In this direction, the prospects for the development of postmodern methodology for the analysis of a literary text are seen, which are outlined in the works of F.B. Beshukova [19], F.N. Khuako [20], K.N. Paranuk [21], M.A. Kuchmenko [22] and others.

The study can be useful for developing an interdisciplinary methodology for comparative studies of North Caucasian literature, productive for the analysis of multilevel texts, including various discursive practices, reflecting the ethno-mental structures of consciousness and thinking in the conditions of polyphony and dialogue of cultures, historically formed in the North Caucasian literatures.

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Prerequisites and conditions for the formation of bilingualism as a socio-cultural phenomenon

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Abstract. The author of this article reveals the current problems regarding the fact that at different stages of human development, the main goal of the modern intercultural paradigm of language education is the dialogue of cultures as the most effective means of communication, creating prerequisites and conditions for the spread of such a socio-cultural phenomenon as bilingualism. The purpose of this research is to study of one of the main tasks of teaching a foreign language, which is the formation of a bilingual personality speaking one or more foreign languages, as well as the creation of scientifically based learning technologies in bilingual communicative situations. The relevance of this article is due to the fact that in the process of learning a foreign language, a bilingual personality is formed and develops, which is able to focus better and regulate their behavior, which makes them less prone to manifestations and more prone to good adaptation in groups of their peers. It is also important that the presence of a language environment is the main condition for the formation of bilingualism, in which the language is used naturally. The article also discusses various approaches to the organization of pedagogical interaction in the educational environment, which contribute to the most effective development of communication of bilinguals. As practice shows, the native language plays a significant role in the development of foreign languages. For example, bilinguals using their native language knowledge can clarify certain nuances of the second and third languages.

Keywords: bilingualism, methodological tools, bilingual personality, bilingual space, bilingualism, motivation

1 Introduction

Multilingualism is becoming increasingly common. The society we live in is becoming increasingly global, with blurred lines between languages and cultures. Nowadays, there are more than 6500 languages in the world and only 196 countries.

It is not easy to formulate a generally accepted definition of bilingualism. Bilingualism means different things to different people. Thus, Bloomfield defined bilingualism as “equal knowledge of two languages” [1].

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Clearly, Bloomfield’s definition of bilingualism requires amendment if it is to accurately reflect people’s actual ability to use languages.

There are a large number of people who speak more than one language without being proficient in them as in mother tongue. This begs the question of how proficient a person needs to be to qualify as bilingual.

Bilingualism as a factor in the study of native and foreign languages is becoming an integral part of modern education. Modern approaches to teaching bilinguals in the conditions of information and communication space make it possible to systematize the levels of cognition of reality in which a bilingual person is a constituent element of a single system of human relationships [2, 5].

Bilingual children, having mastered the languages of their environment since childhood, think and speak fluently in two or more languages, which are both native and non-native for them [2]. They intuitively, effortlessly perceive the languages that they hear around them and it is quite natural for them to communicate with representatives of two cultures. The main condition for the formation of bilingualism is the presence of a language environment where the language is used in a natural way.

Many native linguists such as Desheriev Y.D., Ovkhadov M.R., Yahyaeva A.A., Vagapov A.D. [7,8,12,13,14,15] and others have devoted their works to bilingualism.

The most important factor in raising bilingual children is to make their language development a positive and enjoyable life experience. Children should value two languages, two cultures and be aware of the benefits of being bilingual and bicultural. It is very important that children’s attitude towards both languages (and their motivation to expand their knowledge in them) is constantly encouraged [3].

The languages surrounding him a bilingual child constitute an equally important component. The gardener cannot make the “language” seeds germinate. All a gardener can do is provide certain conditions: rich soil, light, water, and care. The role of the “linguistic gardener” is to provide inciting soil with favorable conditions for the “development” of the language [2].

The bilinguality of a child can also be figuratively compared to two trees in a forest. Each tree (i.e. language) has its roots in the earth and each grows from “zero” independently of anything, that is, it can be stated, that they are both “engaged” in the development of the first language. It should be noted that the formation of both languages usually depends on the nutrients that each receives, and only then can we expect parallel growth.

Two trees may have all independent branches and roots, or they may have some mixing of branches and roots, analogous to a person mixing elements of what are essentially separate languages. To represent figuratively the coexistence of a first language and a second language in one person, a botanical analogy can also be used. For example, ficus takes root not in the ground, but on another tree. Any ficus has its own trunk and branches, but grows on top of the roots and main trunk of its tree. This may eventually overshadow the first tree, but more often than not, two trees (or two languages) live together in each other’s flesh to a ripe old age.

Following the tree metaphor a little further, we can see that our two trees can be potential competitors for nutrients and light, but competition will rarely occur since both trees are planted on the same rich rocky soil. For example, when it rains, it pours on the whole forest, and not just on one tree. When the sun shines, it warms everything. On the other hand, in the forest, when the trees are already mature, they can block the sun, which stops the growth of new plants under them, so that even two establishments in the same climate can grow at different rates.

Thus, the process of mastering a second language is both more difficult and easier for a bilingual than the first language. This process is easy when the child already “knows” the basics of language learning: he knows that he is looking for words to talk about certain things
and that he must pay attention to any prefixes or suffixes and how to interpret words within a sentence.

However, as practice shows, mastering a second language after the first one is also a difficult process for the following two reasons: for example, in order to learn certain contrasting sounds characteristic of a new language in a phonetic system, one sometimes has to “put aside” those already familiar sounds of the first language and start learning completely new ones.

Numerous studies of recent decades confirm the positive impact of bilingualism on the development of a child’s personality. While raising bilingual children can have its challenges, it has many benefits. For example, when children continue to develop their ability in two or more languages throughout their primary school years, they gain a deeper understanding of the language and the ways of its effective use. They have more practice in working with the language, especially when they develop literacy in both languages [4].

Bilingual children come to school with a solid foundation in their mother tongue and then successfully develop their learning abilities at the school level.

As practice shows, a bilingual child with two cultures associated with languages has great understanding and sensitivity. They are successful in many subjects, for example, in history, geography, social studies, etc. It has also been noticed that bilinguals show early interest in languages that they do not speak, but wish to master faster.

According to the research, bilinguals tend to be more concentrated and able to control or regulate their behavior, which makes them less likely to show up and more likely to fit in well with their peer groups.

Bilingual children are imaginative, have excellent logical and abstract thinking. They also have high communicative abilities and flexibility; they not only speak two languages, but fully master the cultural layers of the languages they study.

As children continue to develop their ability in two or more languages throughout their primary school years, they gain a deeper understanding of the language and its effective use. Bilingual children have more practice in language use, especially when they develop literacy in both languages, and they are able to compare and contrast both languages [5].

For example, students who know how to tell the time in their native language perfectly master the concept of telling time in another. To tell the time in a second language, they simply need to learn new words or acquire “surface structures” to further develop their intellectual skills.

Currently, in the education system, starting from elementary school, children study a foreign language in parallel with their native language, as a rule, English, German, French etc.

In this regard, according to researchers, the main task of bilingual education is to develop a competent bilingual education program in which the language is integrated into the educational process as a tool for teaching a foreign language using the native language.

It is known that mastering a “different language code” contributes to appropriation of a linguistic picture of the world, which corresponds to the mentality of a given people. This implies one of the priority tasks of pedagogy: to teach students foreign language communication skills and to promote understanding of the comparative strategies of native speakers of the target language.

It should be noted that bilinguals sometimes use words from another language in a sentence in one language. However, this is not related to the mixing of two lexical and grammatical systems, but is directly related to the transition from one language to another.

2 Methods
According to researchers, foreign language learning suggests that students undergo certain changes that are the result of the coexistence of two or more language systems. In this case, the native language contributes to mastering a foreign language. As practice shows, there are situations when it is the use of the native language that can clarify certain nuances of the second and third languages.

Children who know more than one language have a greater ability to learn new concepts quickly. If they are proficient in two more languages, children absorb new ideas, such as math and science, more easily in other subjects.

Moreover, these benefits, when children enter adulthood knowing multiple languages, they may be more likely to get jobs in certain industries. Education, public administration, and healthcare are just some of the industries that most need employees who are able to communicate with other people in other languages.

3 Results and discussion

There are two ways children become bilingual (trilingual, etc.): either they learn different languages at the same time from birth, or they learn them sequentially, one after the other. Proficiency in both languages can be faster, especially at the initial stage, while learning the language at the same time. Those who first learn one language and then move on to the other may experience time lag in both languages, but with the right support will be able to catch up with their peers.

In the case of simultaneous learning of languages at home each parent speaks to the child his or her own native language. As a result, the child associates language with a respective parent and communicates with each of them using their respective languages. However, this approach should not be seen as the only option for running a bilingual household. If one or both parents speak several languages and feel comfortable speaking them with their child, there is no problem for them to teach their child one of their non-native languages. It is not recommended that parents try to teach their child a primary language they are not familiar with without introducing them to any other.

Children are initially unable to distinguish between different languages. For them, all this serves the purpose of communication. It is common for a multilingual child to start a sentence in one language, finish it in another, or cut off several times along the way. They become able to distinguish between languages as they mature and become more familiar with each of them. However, once people know more than one language, they never really switch off any of the languages, and even multilingual adults have to mentally distinguish between them while thinking or communicating.

Some children switch from one language to another and back again, while others may naturally become more dominant in the other. Once they receive a formal education, they are more likely to prefer the dominant language used in the environment. If you want them to continue to speak other languages, you should provide them with new information and language practice.

It is a myth that bilingual children will experience some sort of permanent barrier to language development if all other factors are held constant, but some have suggested that a bilingual upbringing may cause an initial delay in speech development. However, once they start talking, they usually catch up with their peers.

4 Conclusion
Now therefore, the authors have considered various approaches to the organization of pedagogical interaction in the educational environment that contribute to the most effective development of bilingual communication.

It should be noted that in the conditions of the modern bilingual situation, building such communications is vital.

Presently, the main goal of the modern multilingual intercultural paradigm of linguistic education is the dialogue of cultures as the most effective communicative environment that creates the prerequisites and conditions for the spread of such a socio-cultural phenomenon as bilingualism, which stimulates the formation of a new information culture.

It should be assumed that the topic of interest to us has not exhausted its research potential and may well become the subject of further research in the framework of such sciences as psychology, ethnology, pedagogy, ethnopedagogy, sociology, sociolinguistics, linguistics, etc.

In general, it is important to understand that bilingualism serves as a natural environment for the development of dialogue between representatives of different nationalities and cultures, where the fundamental segment is the sociocultural and spiritual phenomenon – language.

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The role of CRM systems in promotion of educational products of the university

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Abstract. In the context of developing digital economy, it is necessary to constantly evaluate the activities of educational organizations, taking into account IT controlling technologies, which allow the rational use of digital technologies to organize the effective activities of any educational organization. The purpose of the research is a comprehensive study of the role of digital technologies in the implementation of controlling, aimed at increasing the efficiency of promoting educational and scientific products that meet the modern requirements of the educational process. Research methods are systemic and complex analysis. The methodological basis of the study is the analysis of survey results and data obtained using traffic counters, log analyzers, post-click analyzers and multilevel-filter Internet statistics systems. The attitude of students and teachers to the practical application of digital marketing tools in promoting educational products and services of the university was studied. The problems of the insufficiency of the existing system of IT controlling of educational organizations that are able to initiate an increase in the efficiency of the CRM systems application were identified. The general approach to the definition of CRM systems of management in a higher educational institution was considered. The theoretical significance of the research lies in the conclusion about the positive impact of CRM systems on the possible areas of university IT controlling to realize their potential in promoting educational products and services of the university. The practical significance of the research lies in the study of the potential of CRM systems in creating value for consumers, taking into account the needs of public organizations in the field of education. The study identified the following problems: poor provision of educational institutions with their own competitive digital educational and scientific content that is in demand in the educational services market, which negatively affects the implementation of the educational process in the ELE of the university, insufficient attention paid by the administration of the university to the infrastructure for the formation of the value perception of digital educational technologies as an element of CRM systems of controlling; a specific method of popularization of educational products is determined by the university strategy aimed at recruiting students and improving the quality of the educational process. Ways of theoretical and practical solution of the identified problems were proposed.

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Keywords: digital technologies, digital educational environment, management system, IT controlling, CRM systems

1 Introduction

Digital technologies penetrate into all spheres of human activity. Not only do they raise the economy of the state to a qualitatively new level, but also make changes in the daily life of society. As a result, the real sectors of economy, adapting to the requirements of digital technologies and systems, are undergoing significant transformations. This situation was predicted in a World Bank report back in 2016. In particular, the report placed special emphasis on the emergence of fierce competition, in addition to highlighting the impact of digital technologies on the development of organizations, including educational ones [1]. If we consider these processes in relation to the professional teacher training, we can assume that a potential consumer has a relevant choice, based on the fact that against the background of the online technology sphere of influence expansion, all universities have gained access to the global market of educational services, regardless of their location. That is, Internet access creates the possibility of obtaining high-quality educational content at an adequate cost, since the availability of information about the educational services provided forces universities to compete for students introducing advanced ideas on the use of digital technologies into the educational process in order to increase the efficiency of the educational process and reduce the cost of educational services. This statement is confirmed in the works of N.A. Pashkus, M.P. Soloveikina [2], E.L. Vartanova, A.V. Vyrkovsky [3], Horbal, N., Naychuk-Khrushch, M. [4] and others. Summing up the above studies, it should be noted that globalization of educational systems due to increased access to Internet resources leads to increased competition in the educational services market, and this implies changes in the behavior of the parties of educational activity, which, in turn, according to the studies by P.N. Bilenko, V.I. Blinov, M.V. Dulinov [5], A.M. Sanko [6] is one of the aspects of setting new pedagogical tasks that can be solved within the framework of digital didactics.

Digital didactics poses problems for the pedagogical community related to learning in various environments and spaces (from creating one’s own digital content to the specifics of using it in the educational process). The creation of digital content, unlike conventional means of education, implies its own peculiarities, one of which is competitiveness, which reflects the degree of actual satisfaction of a specific consumer need for an educational product compared to a similar product presented on the international market of educational services. Therefore, before an educational institution begins to form its own educational and scientific products, it is necessary to study the content of the modern market of educational services and the needs of consumers, having analyzed all the nuances of an active marketing position. At the same time, while until recently university administrations directed all their efforts to modernizing the material and technical base of their own educational and scientific activities, now the issues of effective promotion of their products are coming to the fore. In this regard, close attention is being paid to the information support system of the marketing department of the university, which should not only provide information about the current state of affairs, but also provide both short-term and long-term forecasts. To a large extent, this can be facilitated by IT controlling based on CRM systems.

2 Materials and methods
Based on a comprehensive analysis of the literature and the conducted empirical research, a problem has been identified that consists in determining the relationship between the need to realize the value of CRM controlling systems for promoting the original educational (scientific) products of the university on the educational services market and improving the quality of education at the university. The purpose of the research is a comprehensive study of the role of digital technologies in the implementation of IT controlling, aimed at increasing the efficiency of promoting educational and scientific products that meet the modern requirements of the educational process. To achieve the goal by decomposition, this goal was transformed into a sequence of four tasks:

– task 1: to explore the use of digital technologies that contribute to the organization of controlling the implementation of educational products of the university in the all-Russian market of educational services;

– task 2: to study the impact of CRM systems for controlling the educational process on competitive advantages between universities;

– task 3: to identify possible ways to resolve the existing contradiction between directive statements about the need for controlling in the context of digital transformation of the educational process and the awareness of the need for this transformation by the parties managing educational process and participating in it through the lens of their own experience;

– task 4: to assess the impact of students’ and faculty’s awareness of the value of CRM systems for controlling on the formation of consumer demand for an educational product, quality of educational results and optimization of the educational process.

The paper employs materials on the issues under study posted on the websites of analytical and professional IT companies; scientific publications; conference materials. In order to study the identified problem, in 2020-2021, a Google-form online survey was conducted for students and teachers of Kuban State University on a voluntary and completely anonymous basis. The sample size made 1137 respondents. Associated methods of empirical research were defined as follows: conversation with students and teachers based on the results of the survey; scientific seminar “Influence of IT controlling on improving the efficiency of educational process management at the university” attended by teachers and staff of KubSU; analysis of the demand for electronic educational products of the university with the help of traffic counters, log analyzers, post-click analyzers and multi-level filter Internet statistics systems. This made it possible to record the personal opinions of respondents on the issue under study and take them into account in processing empirical data, the results of which are presented in this publication.

The practical significance of the research lies in the study of capabilities of CRM controlling systems in creating value for consumers, taking into account the needs of state organizations in the field of education. In particular, the attitude of students and teachers to existing methods of attracting digital technologies to promote educational and scientific products of the university was studied.

3 Results

The economic situation in the market of educational services is changing rather rapidly and sometimes requires immediate decision-making, which determines the level of management and the need to apply a comprehensive database of management approaches for successful implementation of IT controlling. In the digitalization era, it is necessary to develop a set of measures at the level of each subsystem for the technical re-equipment of all departments of the university responsible for educational process and management process using CRM, SCM and ERP software products [7]. Notably, CRM systems are designed to automate management processes in the field of educational services and educational (scientific)
products marketing; to accumulate information about applicants, students, course participants and its subsequent analysis and use for making managerial decisions; to identify how consumers subjectively perceive competitiveness of educational services of the university (preparation for admission to the university, preparation for the main educational programs of higher professional education apart from government assignments (target figures) financed from the state budget within the limits of the maximum licensed cohort of students, advanced training and professional retraining, etc.).

The success of the university under international integration of the educational environment, according to Yu.Yu. Savchenko, is predetermined by its activity level in the field of information and analytical work using CRM systems [8]. Primary information concerning success of promoting university products by digital technologies can be obtained from consumer responses to advertising in the form of banners, text blocks and other media posted on relevant thematic websites and sent by e-mail. At the same time, primary data on the preferences of the resource users are received by the analytical department with the help of traffic counters, log analyzers, post-click analyzers and multi-level filter Internet statistics systems. For example, if we analyze the visits counter readings for official educational websites (using Yandex.Metrica, LiveInternet, Top Bigmir, etc.), then, on the one hand, we can identify the most popular educational resources among potential competitors, and use them as a model for creating similar educational products; choose a valid online platform for advertising and see whether it will pay off; establish the demand for a certain educational product or a specific educational service in a particular region. On the other hand, we can get realistic information about to how much an extent the educational products developed by the university are in demand in the market of scientific and educational services, and how they can influence the opinion of applicants and their parents when making decision regarding the choice of the university where one should study; find out the opinion of teachers and researchers when choosing partners for joint research, participation in domestic and international grants, internships, etc.; find out the opinion of the employer when recruiting personnel, when choosing a university for retraining and advanced training of personnel, concluding contracts on scientific and applied research and development; find out the opinion of the grantor when making a decision on the allocation of funding. Unfortunately, this layer of monitoring for the majority of Russian universities still remains to be realized. Understanding of the need to work in this direction is perceived positively by universities. However, the implementation of such technologies in practice requires special professional skills, and not every university can afford such specialists. Moreover, the analysis of educational platforms showed that, unlike in other economy segments, there are no specialized web platforms that allow consumers to make an informed choice by comparing the existing similar educational products of various universities, and therefore the promotion of educational and scientific products of the university, as a rule, is carried out on the Internet through search engines, thematic catalogs, etc., contributing to attracting the attention of potential consumers and investors to the university applications and more detailed acquaintance with them through the information on the university website.

An important aspect of the CRM systems and IT controlling programs is the choice of a valid online platform for advertising the educational products of the university. To this end, it is necessary to have an idea of how consumers perceive receiving information about the provision of educational services by a university or the possible acquisition of an educational product in one way or another. Based on the results of the study, it becomes obvious that e-mail distribution, although being the simplest method of reaching the target audience, is often perceived as spam. At the same time, while future students practically do not read such mailing lists (7.71%), employees and teachers perceive this type of advertising as the main one (66.06%) (Fig. 1).
What type of advertising influenced your choice of an educational institution in terms of receiving educational (scientific) services?

1. Video (digital) advertising posted on social networks
2. Contextual advertising
3. Electronic bulletin board
4. E-mail advertising

Fig. 1. Study of the influence of advertising activity types of universities on the formation of the target audience preferences.

This once again confirms the fact that when developing a plan for any advertising or PR event aimed at promoting educational services, it is necessary to take into account the characteristics and preferences of the target audience: while for successful communication in the youth environment, it is customary to use a certain approach, for adult audience it will be a completely different one. At the same time, it should be noted that online advertising is a relatively new type of promotion educational products, therefore, the specifics of the Internet environment are often not taken into account [8]. For example, there is a possibility to implement an advertising campaign using Yandex Direct and Google Adword platforms using contextual advertising, which successfully allow to identify the target audience whose area of interest for the latest search queries coincides with the profile of the services provided by the organization. This allows to save money on advertising costs and ensure a high percentage of response to information. If there is no such opportunity, then one can place advertising of the services in social networks (VK, Instagram, Facebook, YouTube, etc.), since this type of advertising requires a minimum of professional skills) prepared by a team of authors [9].

Almost every university strives to improve its web-portal: they develop a distinctive design, post current news about the life of the university, necessary information for applicants, students and teachers. However, as practice shows, in the conditions of fierce competition in the educational services market, the creation of such content alone is not enough. It is necessary to promote the website of the university on the Internet. And for this, it is necessary to take into account the specifics of the perception of information that could be of interest to the target audience. For this purpose, for example, special questionnaires can be worked out (Fig. 2) or visit counters for each page of the website can be set.
What information interested you most when visiting the website of the university?

1. The university national and international rankings
2. Licenses, list of majors and areas of training, information on the availability of state-funded places, employment of graduates
3. News from the life of the university and its divisions
4. Video, photo, text information that covers the educational process, student life
5. Educational courses and educational materials in the public domain
6. Advertising of educational products
7. Positive feedback (recommendations) for educational activities of the university
8. Reviews of graduates, employers, public leaders about the university
9. Possibility of interactive communication
10. Phone numbers, mailbox, online forms through which one can get further information about the university

Fig. 2. Analysis of data obtained using a questionnaire for students and teachers who visited the websites of universities.

The strategy and tactics of promoting educational services on the Internet directly depend on the influence of behavioral factors. For example, teachers and students, as a rule, pay attention to the ELE of the university, which is explained by the introduction of elements of distance learning into the educational process. However, while teachers, according to the control counters, distribute their visiting time evenly throughout the year, students, in general, get agitated immediately before the start of the examination period. And on the part of applicants, interest in the content of the website reaches its peak at the end of the academic year (which means May, as a rule), so it is at this point in time that it is desirable to post information on the first page of the website about the advantages of this university compared to other universities, and what it can offer to its potential students. In this regard, data that reflect the factors influencing the choice of a university will be of interest. Despite the fact that when choosing a higher education institution, as before, preference is given to such factors as “rating” (55.69%) and “territorial proximity to the place of residence” (52.73%), the pace of development of modern society requires rethinking values of factors influencing the choice of potential consumers. Their focus includes such indicators as the possibility of “distance education” (38.55%), “access to educational content at a convenient time” (51.99%), “online access to knowledge from highly qualified teachers” (40, 92%). At the same time, “designing educational routes”
(24.67%) and “the possibility of promoting one’s ‘electronic portfolio’ through the university’s ELE” (38.55%) interested a significant part of the respondents (Fig. 3).

Which of the following factors might influence your choice of a university?

1. Opportunity to receive high-quality distance education
2. Access to educational content at a convenient time for the user
3. Online access to knowledge from highly qualified teachers
4. University ranking
5. Territorial proximity to the place of residence
6. Possibility of designing individual educational routes and organizing training according to an individual curriculum
7. The high level of ELE of the university in the promotion of ‘electronic portfolios’ in order to increase competitiveness of graduates and teachers

Fig. 3. Factors influencing the choice of university by students.

From the conversation with the students, it was possible to find out the reasons why the students made such a choice: firstly, in the real educational process, educational institutions prefer the conventional form of organizing classes; secondly, the electronic learning environment of the university is at the stage of formation, therefore, as a rule, it is used by structural intra-university divisions, that is why it is not yet worth considering it as a platform for employers to search for potential employees. As a result, in order to attract students, universities should pay special attention to demonstrating, on the one hand, their capabilities in the provision of services through their material and technical base, including modern digital technologies (Internet; high-performance gadgets – smartphones, laptops, etc.; Web 2.0 tools – blogs, wikis, podcasts, social networks, etc.; cloud services – Dropbox, Google Drive, Mega, etc.; VR, AR and artificial intelligence devices). On the other hand, the university resources allow students to form the digital competencies they need in their future professional activities. This makes the educational environment of the university more adapted to the target audience.

4 Discussion

The analysis of the scientific and methodological literature [8-12] showed that apart from positive, there is also negative experience in the implementation of IT controlling in universities. For example, R.R. Zaripov in his work notes that the introduction of controlling without a comprehensive study of this issue (errors in understanding the essence and tasks of controlling, in choosing goals, in choosing sources of information; excessive or
insufficient information) can lead to destabilization of the organization’s activities [13].

According to E.A. Neretina and A.B. Makarets, there is no staff capable of competently implementing CRM systems in Russian universities, since the administration prefers traditional conservative planning methods. In addition, there is no methodological basis for the implementation of CRM systems in Russia, since this requires significant financial investments [14]. A more cautious statement can be found in the works of A.M. Prokhorova. In particular, the author reflects both positive and negative aspects of implementation of these technologies: she believes that although Cookie contains high risks of non-compliance with the principle of privacy of actions, it still allows to test the effectiveness of advertising, and although counters and log files reflect the most accurate information about the number of visits, but to work with them, one needs the appropriate qualifications of the resource administrator [15]. Thus, the issue of compliance of IT controlling and digitalization is actualized in the context of increasing the efficiency of the educational process organization at the university. Similar results can be found in the studies of Adela Laura Popa, Naiana Nicoleta Tarca, Dinu Vlad Sasu [12]. By the way, the authors took a step further in their research and made, as an example, preliminary calculations of the effectiveness of university advertising in Google Ads and Facebook Ads, noting the advantages and disadvantages of both sites.

At the same time, the results of the study suggest that even at the initial stage of implementing CRM controlling systems in order to promote university products on the educational services market, it is possible to obtain the necessary information through post-click analysis (take into account user click-throughs over the website pages, the nature of the ongoing actions during the time on the pages of the resource, etc.), which will help increase competitiveness of educational products and services of the university both at the All-Russian and international levels [8, 16, 17]. Social and marketing parameters obtained as a result of the monitoring will allow to form an effective advertising strategy, sales and promotion of educational services.

5 Conclusion

The comprehensive analysis of the literature and the conducted empirical study confirmed the fact of the relationship between the need to understand the importance of CRM controlling systems for promoting the university’s original educational (scientific) products on the market of educational services that meet the modern requirements of the educational process, which invariably affects the improvement of the quality of education at the university on the whole. However, the psychological and pedagogical aspects of consumer behavior, planning and implementation of programs for promotion of educational products, as a tool for CRM systems, are currently underinvestigated. The study identified three problems: 1) poor provision of educational institutions with their own competitive digital educational and scientific content that is in demand in the educational services market, which negatively affects the implementation of the educational process in the ELE of the university; 2) insufficient attention paid by the university administration to the infrastructure for the formation of the value perception of digital educational technologies as an element of controlling CRM systems; 3) a specific method of popularizing educational products is determined by the strategy of the university aimed at admitting students and improving the quality of educational process.

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Influence of Information technologies on English

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Abstract. This article examines the linguistic properties of online communication in the context of the English language and in particular the influence of the Internet and IT technologies on the development of the English language. This area is considered relatively unexplored. Netspeak is a completely new means of communication, the dominant influence of which is growing rapidly. The article examines how the nature of the electronic environment and the global use of the Internet influence the English language, further discusses and describes some of the distinctive features of Netspeak at the lexical and spelling levels. With the development of digital media, such as smartphones and computers, social networks have become a part of human life. Social networks are actively used by teachers as an educational tool to provide students with educational materials and knowledge. This is, by all means, very effective and convenient, but the lack of restrictions on the language used in social networks has done users more harm than good. Consequently, the emergence of social networks can be both harmful and useful. The impact on the level of English proficiency caused by the use of social networks depends on the habits and preferences of the user.

Keywords: Internet, IT-technologies, Netspeak, social networks, English, blog, chat, grammar, vocabulary, Standard English, slang, acronyms.

1 Introduction

Our century is the century of accelerated development of technology. In the modern world, it is difficult to imagine a person without a mobile phone, laptop, or some other gadget. Our daily life is so filled with information technologies that sometimes a person abandons the outside world, replacing it with technical devices. Since its inception, the Internet has become an important component of the process of globalization and the widespread use and dissemination of the English language.

Today, the Internet is the newest, widest, and fastest means of information exchange around the world, and English is one of the important means of exchanging various kinds of information between different communities. The Internet and information technologies are connected with language communication, therefore, they affect the development of language, and quite significantly. The lexical system of any language is susceptible to extra-linguistic factors, which, in turn, contributes to the rapid development of this system.

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Thus, electronic communication technologies (social networks) have revolutionized the development of English written and spoken language. Communication technologies reflect several types of electronic communications that are usually associated with Internet access. Currently, this can be done both through computers and through mobile phones. Among these are email, chat rooms, forums, instant messaging devices, social networking sites, gaming networks, and blogs. With the development of digital media, such as smartphones and computers, social networks have become a part of human life.

The influence of the Internet and information technologies on modern English is obvious. These technologies affect various spheres of human activity. A lot of slang vocabulary penetrates through the Internet, it gives additional meaning to already existing words and terms, such as “mouse”, “keyboard” and so on. Moreover, the Internet creates words and sayings that unite people from all over the world.

2 Materials and Methods

The factual material for this study was various kinds of electronic written materials of Internet users. The sources of the study were the following social networks as Facebook, Twitter, WhatsApp, email, chat groups, blogs, search engines - Google, Yandex, dictionaries of computer and Internet terms, etc.

The analysis of the collected data was carried out according to the following criteria: the use of abbreviations; the use of new vocabulary; grammar; spelling.

The main purpose of our research is to identify the main changes taking place in the English language under the influence of the Internet and information technologies. This goal defined the following tasks:
- review of scientific literature on the research topic;
- analysis of modern Internet resources, identification of common lexical units in this area.

In this study, theoretical, empirical, and statistical methods of data processing were used. The method of continuous sampling was used, which involves collecting data from social network chats, Internet publications, magazines, etc.

3 Results

Excessive use of the Internet has led to significant changes in the daily use of the English language.

This study focuses on the changes that have occurred in written English (written materials of Internet users). In particular, this is the appearance of new words, new spelling, and punctuation, as well as changes in grammar.

The Internet language has some features related to oral and written speech, for example, phonetic and phonological. In addition, a fully-formed language style is visible, with its vocabulary, abbreviations, spelling and punctuation, grammar, slang, and all other features that define a real language style. Internet users have the opportunity to communicate faster and send short text messages to each other.

All abbreviations and acronyms included in the Internet language make up the majority of Netspeak’s vocabulary, along with lists of invented words and phrases.

In particular, the new vocabulary being manipulated in electronic communication gives a fascinating insight into how quickly new words can appear and as well disappear. It could be argued that every few years some new words become obsolete, while others, on the
contrary, are used more often. This use of vocabulary is often related to the needs of Internet users.

We'll fix some features of the Internet language, for example, new vocabulary and abbreviations. One of the most obvious and noticeable features is the vocabulary belonging exclusively to the Internet. This vocabulary does not contain terminology related to computer science and other relevant subjects. Many new words differ from technical terms, such as lockdown, peeps, lit, cable, disc, bit binary, to reflect specific situations, operations, actions, and so on.

A popular way to create Internet terminology is to combine two separate words to form a new word, for example, mousepad, one-click, double-click.

In the process of analyzing the vocabulary used by Internet users, it was found that, for example, the preposition at, often denoted as @, is acquiring an increasing prefix function: atcomman, atsighn, @-party, @address.

A similar technique began to be used in areas not related to the Internet. Internet abbreviations and text messages, SMS language, or Internet acronyms are abbreviated language and slang words commonly used in mobile phone text messages, email, and instant messages (online chat applications such as Messenger from Facebook, Instagram, Twitter).

When analyzing text messages, it was revealed that these messages do not use Standard English and there are many abbreviations. Texts are supposed to be instantaneous, so using abbreviations is considered a simpler and faster technique than writing full forms of words. Consequently, the various types of abbreviations found in chat groups, text messages, and blogs are one of the most distinctive features of the Internet language.

Abbreviations are very common, they usually replace new full forms of words, for example, acronyms like BBS (bulletin board system), BCC (blind carbon copy), CID (consider it done), CIO (check it out), and FAQ (frequently asked questions) are often found in everyday use of the Internet language. Abbreviations are used so often that they regularly receive comments and responses. Abbreviations used on the Internet are no longer just a combination of letters. They denote the full meaning and are pronounced as words. Below are examples of various common abbreviations:

- Too fast for you – 2F4U
- For your eyes only – 4YEO
- Tomorrow – 2MORO
- Tonight – 2NTE
- As a matter of fact – AAMOF
- As far as I know – AFAIK
- Also known as – AKA
- See you – CU
- See you soon – CUS
- Best friends forever – BFF
- Because – B/C
- Do it yourself – DIY
- Face to face – F2F
- Have fun – HF
- Great – GR8
- I don’t know – IDK
- No comment – NC
- No problem – NP
- Thank you – TQ
Abbreviations that do not comply with the rules of literary speech are used, for example, pls - please, v - very, etc.

Emotions are described using interjections, for example, yup, yay, yeah - consent, approval; wow, oh - surprise.

Grammar changes: the subject is omitted, the verb to be (enough history for one day?) is often ignored, there is a lack of auxiliary verbs (you agree?), tag questions are not used according to the rules of the English language (sounds fun, right?).

Expressive graphology is also a distinctive characteristic of the Internet language. For example, writing in capital letters is used in different ways and varies greatly. Graphic means expressing the emotional state of a person. This effect is achieved with the help of special punctuation, extra-linguistic signs, and a mixture of numbers.

4 Discussion

David Crystal argues that new technologies promote new activities by developing new styles of English. Therefore, the influence of a certain technological environment is considered very interesting. Crystal believes that this is a relatively temporary phenomenon, and, in his opinion, it takes a very long time for it to be recognized as a significant change. The use of some social networks, such as Twitter, Facebook, can change what people write, these changes are influenced by the style of writing, how they write. According to Crystal, the English language is more or less the same as it was twenty years ago [1-4].

It is argued that technological changes to some extent tend to provoke linguistic and cultural changes. Therefore, new and, as a rule, very fashionable words are constantly being added to dictionaries. In this regard, Dewey and Al-Qadi believe that old words with new meanings are more interesting than new words [5, 6].

Due to the fact that access to technology does not pose any threats to business and social interactions, it is easily accessible and users do not face any problems. Almost all native English speakers, as well as foreign students, use the Internet.

Naturally, all living languages change over time and the Internet has offered a new environment for implementing these changes. As the Internet has become a public means of communication available everywhere, English spelling, vocabulary, pronunciation, and grammar have also changed.

The analysis of scientific papers on the topic under study shows that there are conflicting opinions in the scientific community about the changes that have occurred under the influence of the Internet. Ali and Kern believe that new changes taking place in the English language caused by the influence of the Internet pose a threat to standard English [7, 8].

These arguments are explained by the fact that the English language of social networks used nowadays often does not correspond to standard versions of the English language.

David Crystal believes that technology has made a linguistic revolution [4]. Cristal and other linguists, for example, Herring, believe that changes in the form and use of the English language have led to the emergence of a new form of linguistics called Internet Linguistics [9]. In some academic institutions, Internet Linguistics is widely discussed in the field of digital communication. The interaction takes place by exchanging messages through computers connected to the network, both orally and in writing. Using such a branch of discourse, social and economic factors influence the style of email. Cho argues that the English language used in e-mail is characterized by informality than other types of written communication [10]. Yates, on the other hand, concludes that “CMS is more like writing than speech in terms of vocabulary range” [11].
In the course of their research, Kadir, Maros, and Hamid revealed that linguistic features that are used in text messages include abbreviations, acronyms, homophones, non-traditional spelling, accent stylization [12].

In the modern era, electronic devices such as personal computers, tablet computers, and mobile smartphones have made it easier for millions of students to study, communicate and have fun. Social networks are the latest online communication tool that allows users to create profiles and share information with other users. The development of the English language is accelerating with the growth of social networks. The Internet has revolutionized the English language, making spelling mistakes and new jargon the norm. People tend to type faster on the Internet, and this generates a unique behavior that ignores the importance of observing the grammatical norms of the language.

Today modern language education is unthinkable without the use of information technologies. IT technologies have not just raised the learning process to a new level, but have become a necessary condition, which emphasizes the relevance of the issue under study.

Social networks not only bring people together they also provide an opportunity to share information with the whole world. For example, Facebook offers a feature called “Pages” that allows any user to open a page, share information, promote websites and news. The question is, do this news and information reflect the correct form of the English language?

Another problem is that students often use Internet slang in their speech in practical English classes. This problem is observed by almost all teachers. When users master Internet slang, they subconsciously or accidentally start using it where Internet slang is prohibited, for example, in an official letter.

Several relevant studies have been conducted, which concluded that the main factor influencing the level of English proficiency is how a person uses social networks. According to Adhi Susilo, Facebook and WhatsApp are good language learning tools for students [13]. This is because Facebook provides educational, social, and technological opportunities that allow for the exchange of ideas and interaction between teachers and students. It is taken into account that WhatsApp is also one of the useful tools that provide good distance learning since its functions are useful for students in the field of mobile learning and free access to educational resources. The teacher and the student can interact with each other anywhere and at any time thanks to the high availability of the mobile application.

However, it is difficult to disagree with Dr. Salame S. Mahmoud, who believes that students should be aware of the negative impact of social networking sites on their academic performance, and not only consider social networking sites as a convenient communication tool [14]. Students should learn to separate the use of Internet slang and traditional formal English texts.

In schools and universities of our country, as a rule, classical English is taught, although in linguistic universities and foreign language faculties there are disciplines in spoken English, and particularly, slang. We should say, that the spoken language differs from classical English, but few even native speakers, the same English or Americans, speak the so-called Standard English. It should be noted here that none of the most advanced ways of teaching English in any country can keep up with the modern and rapidly developing the English language.

Schools teachers often prohibit children from using slang in colloquial speech. This, for sure, is not a solution to the problem. As teachers of a pedagogical university, we also face the problem of students using Internet slang in colloquial speech. Why a problem, the question arises? For example, we often come across the fact that even the best students in the classroom use Internet slang without thinking about the literacy of these expressions (gonna, wanna, yup), arguing that this is what certain stars, famous people say, or they heard these expressions in songs. This suggests that the language of the Internet and social networks is
a sample for them. And since we are preparing future English teachers, it is important for us that our students’ speech is literate.

We believe that slang and particularly, Internet slang should be taught at school. Children can be given various individual tasks on slang (or Internet slang), for example: Explain the origin of this slang; How was this slang or slang expression formed? (word formation); Explain the grammatical features of this expression (deviations from classical grammar); What is the original meaning of this word?

Such tasks, in our opinion, will not only help motivate students to learn a foreign language, since this vocabulary is interesting to students but also will contribute to the fact that students themselves will be interested in learning a classical language since they will need to make an elementary comparative analysis. In the future, it will be easier for them to orient the appropriateness of using one or another Internet slang. This, of course, will depend on the level of development of students.

5 Conclusion

The Internet is an absolute thing that is needed by almost everyone in the world. Thanks to the Internet, the world is getting smaller and people are getting closer to each other with the invention of social networking sites such as Facebook and Twitter. However, social networking sites can have a negative impact on English language proficiency due to the use of Internet slang in communication with each other.

It is obvious that electronic communication has a noticeable impact on the use of modern English. It is expected that the trend of using the Internet and other various social networks will continue in the near and distant future, introducing new forms of language, such as new graphology and network speech, which do not follow the grammatical and syntactic rules of standard English.

Analysis of the data collected during our study showed that users of the Internet and other technological media in their text messages, emails, chat groups, and blogs most often use various kinds of abbreviations and acronyms. In addition, spelling deviations were also found, which are considered spelling errors.

It is expected that new vocabulary, new abbreviations, spelling mistakes, and punctuation may appear and be used frequently in the future. It is believed that these new language forms contribute to the renewal of the English language, but at the same time, they should not change the essence of the language.

References


Assessment of the formation of digital competencies in teachers based on the fuzzy sets theory

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Abstract. The article deals with the issues of assessing the formation of digital competencies of teachers. Today, digitalization affects all spheres of society, including the system of vocational education. It should be noted that education, while undergoing dramatic changes, leads to the need to transform approaches in the professional training of future specialists with a wide range of qualitatively new competencies. There is a need for a qualitative and systematic assessment of the level of the teaching staff digital competence. The reliability and validity of the teachers’ digital competencies assessment, according to the authors, ensure the use of the fuzzy set theory. This paper investigates approaches to the assessment and formation of digital competencies, where the main goal is to control the formation of digital competencies in teachers based on the fuzzy sets theory. To achieve this goal, the authors solved the following tasks: working out a model for managing the development of competencies; consideration of digital competencies assessment based on the fuzzy sets theory. An example of assessing the digital competencies of teachers is given in the paper. The following results are obtained: generalizing distributions of fuzzy sets combinations before and after the process of assessment of the digital competencies in teachers based on fuzzy set algorithms. This study is aimed at identifying the effectiveness of assessing the formation of digital competencies in teachers based on the fuzzy sets theory.

Keywords: competencies, digital competencies, fuzzy sets, competency-based approach, education quality, competency assessment, digital competencies formation control system

1 Introduction

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In modern conditions of the innovative education system formation, the main goal of the educational process is the development of the personality of students, including their creative capabilities, where the result of the educational process is the formation of key competencies in students, including digital ones.

Currently, the education system offers a number of methods for assessing the formation of competencies among students, although the proposed methods mainly contribute to the formal assessment of competencies by the percentage of the number of main indicators for assessing results (integral method, dichotomous method, and others), without fully reflecting the learning outcomes. In this case, a more accurate approach may be to use the qualimetric method and various other technological methods.

On the basis of our study, we have developed a methodology for assessing the level of digital competencies formation in students based on the fuzzy set algorithm.

### 2 Materials and methods

In recent years, new approaches in vocational education related to the implementation of the competency-based approach have been actively considered.

Both foreign and Russian scientists carry out the study and operational research on the formation of competencies and the competence-based approach to education. Among the studies in this area, we can single out the works of Khutorsky A.V. [1], Zimmaya I.A. [2], Zeer E.F. [3], Mamonova L.I. [4] and others.

The formation of the key and digital competencies necessary for professional activity involves the acquisition of not only the skills and abilities of designing professional activities in the digital economy, but also the achievement of personal skills and abilities in this area, reflection of one’s activity [5-8].

Today, instrumental methods for assessing competencies and assessment software have been developed and are being used for assessment.

The methods of research, in addition to the method of assessment, included the methods of the fuzzy sets theory, analysis and generalization of the works of domestic scientists, tracking and studying the results of the study.

The main purpose of this work is to describe the process, results of assessment and management of the formation of digital competencies of teachers based on the fuzzy sets theory.

The novelty of this work is the determination of the dependence of assessment levels for competencies in the model under study and its comparison with the self-assessment of the students, confirming the high accuracy of modeling with an error of slightly> 2%.

An integrated approach to assessment, where indicators are given not only for knowledge, skills and abilities, but also for personal qualities, also contributes to the timely decision-making on the qualitative formation of competencies [9].

It should be noted that the effectiveness of competency assessment depends on the efficiency and timely managerial decision-making in the course of work, consistency and the provision of mandatory feedback [10].

The formed and assessed digital competences selected from the List of digital competences for digital economy are denoted by the code of DC (digital competence) (Table 1). Table 1 shows only some of the digital competencies selected from the List.

<table>
<thead>
<tr>
<th>DC01</th>
<th>Internet of Things</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC02</td>
<td>Cyber security and data protection</td>
</tr>
</tbody>
</table>
The assessment of competency levels is carried out on the basis of the fuzzy set algorithm using the theory of the fuzzy set algorithm, which makes it possible to more correctly identify data, and it also becomes possible to operate with fuzzy input data: assessments of the level of competencies fast tracking by the students. When assessing, the expert determines the levels of competency formation according to the assessment scale: threshold, advanced, high, and as a result the competencies are assigned weight coefficients. In this case, a cross-assessment of the assessed competencies takes place.

Thus, when implementing such a model, the degree of grades reliability and their distribution are operated.

A combination of fuzzy sets for assessing competencies are formed from membership functions that correspond to each level of competency formation based on their weight coefficients (Table 2).

I.V. Demkin, I.N. Tsarkov, I.M. Nikonov, V.M. Anshin believe that the use of numerical and qualitative indicators based on the theory of fuzzy sets in the assessment opens up new opportunities [11].

**Table 2.** Correspondence of competency assessments to membership functions

<table>
<thead>
<tr>
<th>Level (assessment) of competence</th>
<th>Explanations</th>
<th>Membership function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold (Th)</td>
<td>Reproduces, understands the essence</td>
<td>( \mu_{Th} = \exp\left(- \frac{(x - 0.3)^2}{2 \times 0.08^2}\right) )</td>
</tr>
<tr>
<td>Higher (Hh)</td>
<td>Solves common tasks “with assistance”</td>
<td>( \mu_{Hh} = \exp\left(- \frac{(x - 0.4)^2}{2 \times 0.08^2}\right) )</td>
</tr>
<tr>
<td>Higher (Rp, reproductive)</td>
<td>Solves typical problems, chooses methods from known ones</td>
<td>( \mu_{Rp} = \exp\left(- \frac{(x - 0.5)^2}{2 \times 0.16^2}\right) )</td>
</tr>
<tr>
<td>High (Practical)</td>
<td>Solves non-standard tasks that require method transformation</td>
<td>( \mu_{Pr} = \exp\left(- \frac{(x - 0.6)^2}{2 \times 0.08^2}\right) )</td>
</tr>
<tr>
<td>High (Rs, research)</td>
<td>Able to solve research problems using innovative approaches and methods</td>
<td>( \mu_{Rs} = \exp\left(- \frac{(x - 0.7)^2}{2 \times 0.08^2}\right) )</td>
</tr>
</tbody>
</table>

### 3 Results

Let us present the results of assessing the competencies of teachers, students of advanced training courses, where the main goal was to identify the level of changes in digital competencies, based on the results of the classes (Table 1). Due to the fact that teachers have a certain level of personal and professional competencies, the criterion of “self-assessment” was added to the criteria for digital competencies.

Table 3 shows the results of competency assessment by students and an expert. A student of advanced training courses was selected, whose self-assessment of the formation of competencies differed by a smaller amount from the assessment of the expert.

**Table 3.** Assessment of competencies by students and an expert

<table>
<thead>
<tr>
<th>Basic competence</th>
<th>Weight coefficients</th>
<th>Student assessment</th>
<th>Expert assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Before</td>
<td>After</td>
</tr>
<tr>
<td>DC03</td>
<td>Programming and creation of IT products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC04</td>
<td>Industrial design and 3D modeling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC05</td>
<td>Development of computer games and multimedia applications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC06</td>
<td>Mobile application development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The convex combination of fuzzy sets for assessing the level of competence formation of the selected student by the expert has the following form:

\[
\mu_{bf} = (0.1265657 + 0.0346467 + 0.0808082 + 0.1467676 + 0.191919 + 0.181818 + 0.367673) \\
\exp\left(-\frac{(x-0.3)^2}{2\times0.08^2}\right) + 0.367673 \times \exp\left(-\frac{(x-0.4)^2}{2\times0.08^2}\right)
\] (1)

During the experiment, the levels of digital competency assessments for a teacher were “accidentally” changed in order to consider the changes that occur with the combination of fuzzy sets of assessments by the student and by the expert based on the resulting combinations of the final assessments of the level of competencies before and after the experiment.

Next, we introduce the characteristics: dispersion, asymmetry, and kurtosis. They will be used to obtain the distribution of fuzzy sets combinations.

**Table 4.** Relative error of assessments of competencies when changing the characteristics of fuzzy sets of assessments

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Error “Before”, %</th>
<th>Error “After”, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.1</td>
<td>3</td>
</tr>
<tr>
<td>Dispersion</td>
<td>0.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Asymmetry</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>3.9</td>
<td>1.9</td>
</tr>
</tbody>
</table>

The conducted studies show a decent degree of use of the fuzzy set algorithm for the formation and assessment of competencies.

**4 Discussion**

Today, competencies are becoming an effective means of managing human resources, providing the labor market with specialists having demanded qualifications [12, 13]. In this regard, all levels of education need a large-scale digital transformation, improving the mechanisms of interaction with the modern labor market [14].

Competence-based approach in managing the process of formation and development of professional competencies contributes to improving the level of specialists training in accordance with modern requirements of the labor market [15].

In the system of secondary vocational education, two categories of competencies are defined: general and professional competencies, which in turn can be divided into two types: integral (general scientific, instrumental, personal) and differential (specific competencies for a particular specialty).

In the educational process, the formation and assessment of competencies should be carried out through educational practical tasks that simulate production processes, real
professional situations. But the assessment of competencies mainly depends on many factors, objective and subjective. This gives rise to certain difficulties in managing the system for assessing the competencies. Management of a complex system of assessing competencies, including teacher’s competencies, is impossible without a specific definition of an assessment method that would more accurately assess competencies with a large number of criteria.

5 Conclusion

Thus, one of the main directions in the development of the educational process is the digitalization of education, which should be carried out by teachers with appropriate digital competencies who effectively carry out their professional activities in a constantly changing digital environment [16].

As a result of the research on the formation and assessment of digital competencies of teachers, the following was performed:

1. Description of the process for the formation and assessment of digital competencies of teachers as a theoretical part of the development of a model for managing the process of formation and assessment of competencies.
2. The choice of methods and techniques for representing the management model for the process of forming and assessing competencies, describing the use of the fuzzy set algorithm for evaluating digital competencies.
4. Presentation of assessment results, presentation of numerical and graphical parameters and characteristics, discussion of the results of the work.

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Intellectual environment of pedagogical universities: developing research skills

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Abstract. The paper deals with the intellectual environment of a pedagogical university, describes various methods and technologies of students' research skills formation. It is accentuated that research and teaching creative student methods are carried out in all the courses of a pedagogical university by means of organizing an intellectual environment. Intellectual capabilities, the peculiarities of intellectual development within a pedagogical university and the development of research skills are analyzed. It is stated that the intellectual environment in a pedagogical university means organizing students' training with the help of information-communication technologies. The intellectual environment of a pedagogical university facilitates the formation of a research style of thinking in future teachers, the mastery of methods of scientific knowledge and creative approaches to the organisation of pedagogical activities. An integral part of the intellectual environment is the computerisation of education. Online learning is now one of the most common forms of intellectual environment of a teacher training college using internet technology.

Keywords: learning, research competence, intellectual environment, education, communicative technologies, personality, development, activity, pedagogical process.

1 Introduction

Socio-economic changes in the world have an impact on the formation and development of a student's personality. In the context of the modernization of the teacher education system, special attention is paid to the creation of an intellectual environment for the formation and development of research competences in students.

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A modern teacher should possess not only fundamental knowledge, but also the skills of creative problem-solving, rapid orientation to changing conditions, continuous improvement of pedagogical competence, the skills of doing research, the ability to carry out scientific research for ways to improve their quality of teaching on their own. All these qualities need to be formed at university.

They are nurtured through the active participation of students in research activities, which at present is becoming increasingly important in the Federal State Educational Standards of Higher Education and is an important part of higher education. Conducting research and fostering students' creative activity is encouraged in all courses of a pedagogical university through the organization of an intellectual environment. The main purpose of organizing an intellectual environment in a pedagogical HEI is to involve students in research activities in priority areas of education. Also the intellectual environment of a pedagogical university contributes to the formation of future teachers' research style, their mastering of scientific knowledge and creative approaches to the organization of educational activities.

2 Materials and Methods

As we know, today we need a teacher whose personal readiness is characterized by such qualities as creativity, the need for self-development, research competence and sustainable professional orientation. The aim of the article is to analyze the most important aspects for the organization of the intellectual environment of a pedagogical university and for the development of students’ research competences.

The following forms and methods for the development of students' research competences and creative potential can be highlighted, they include organizing and conducting discussions with students, using heuristic methods, involving students in the development of research projects. These forms and methods of teaching students contribute to the development of analytical thinking, independence in learning and stimulate putting forward new ideas.

The content and methods of education are qualitatively changing in today's pedagogical universities. T. Friedman believes that it is necessary to develop such competences as analytical thinking, the ability to introduce new ideas, communication skills and skills to solve complex problems. The intellectual environment of pedagogical university becomes the most actual in the conditions of the constant renewal of educational system [5].

Intellectual environment is a concept consisting of two categories. In the Explanatory Dictionary of the Russian language, the category "environment" is interpreted as a condition, an environment in which an individual's activity takes place [15]. In pedagogical literature the problem of the influence of the environment on the development of personality is reflected in the studies of scientists like A.F. Lazursky, K.D. Ushinsky, F.A. Disterverg, S.T. Shatsky. In foreign pedagogy the problems of the interaction between the environment and personality are considered in the works of J. Dewey, G. Wineken, E. King, P. Kerschensteiner, J. Lauerais, J.-J. Rousseau, J. Friedman. In Russia the idea of education in the environment was initially implemented in the 20th century. Researchers (A.A. Bogdanov, L.S. Vygotsky, S.T. Shadsky) considered the environment as a factor of socialization and believed that the environment influences the development of personality. At the beginning of the 21st century the interest of scientists to research the phenomenon of the environment as a possibility for the development of the necessary competences of future experts became more active. Thus, in pedagogy the environment is defined as a condition for personal development.

The term 'intellectual' is interpreted as an individual's ability to comprehend new situations, the ability to learn and to use their knowledge in activities.

One of the main tasks of a pedagogical university is the transfer of knowledge to students, which becomes possible when modern technologies are included in the educational
programs. For this purpose, it is necessary to organize an intellectual environment in a pedagogical university. Intellectual environment is a technological space that provides effective, dynamic personal development and reflection on the activities of the participants in the educational process. The intellectual environment of a pedagogical university is a system, which integrates various means and methods of artificial intelligence, allowing the simulation of teaching and research tasks. An integral part of the intellectual environment is the computerization of education. In pedagogical science, a great contribution to the development of computer learning technology has been made by scientists like V.I. Gritsenko, G.R. Gromov, O.I. Agapova, V.F. Sholokhovich, G. Kleiman, B. Hunter, B. Sendov [10].

3 Results

In our understanding, the intellectual environment of a pedagogical university implies the organization of student learning using educational tools of information and communication technologies like electronic textbooks, knowledge control systems, training systems, electronic libraries, training computer programs, search systems, teleconferences. The forms of interaction in the intellectual environment of a pedagogical university are both "online" and "offline" modes of communication technology.

Several aspects can be distinguished in the intellectual environment of a pedagogical university, most notable the motivational aspect. The intellectual environment contributes to the formation of students' positive motivation, the disclosure of creativity and students' mastery of modern learning technologies. The teaching and methodological aspect of the intellectual environment of a pedagogical university consists in the teacher's use of computer tests, information and electronic resources in the research activities of students [10].

The main objectives of the intellectual environment of a pedagogical university are things like using modern information technologies in the learning process, enhancing learning activities, integrating students' learning and research activities, and adapting digital technologies to the individual characteristics of students.

4 Discussion

The problem of studying intellectual development is still not fully understood. Intellectual potential is a basic resource, the modern personality’s set of spiritual and social qualities, the realization of this potential provides the possibility of self-development. Intellectual development is the most important component of any personal activity — social, educational, labor — as to meet his needs in communication, learning and work, a person learns to know the world around him learns new activities, plans, imagines and thinks about his actions. Therefore, intellectual abilities develop in the process of activity and are themselves types of activity. Intellect as a person's ability to act purposefully, think rationally and achieve certain results are necessary in the process of overcoming various difficulties and solving a variety of problems [18].

Intellectual abilities are the basis of personal development, as they form and develop such mental processes as perception, attention, memory, thinking and speech, which are the prerequisites for cognitive activity.

In our modern high-tech society, intellectual activity is a major phenomenon and an indicator of the effectiveness of professionals.

One of the most relevant models of intelligence development in children is considered to be the operational model of intelligence development by Swiss scientist J.J. Piaget. In Piaget's view, the intellect is not a blank sheet of paper on which knowledge can be recorded, nor is it a mirror that reflects the perceived world. He uses the terms 'assimilation' and 'accommodation', according to which either the interpretation of new experiences on the basis
of existing mental structures, in order to connect old and new experiences, or the modification of already developed knowledge, skills and abilities, take place.

It is assimilation and accommodation that form the basis of children's intellectual adaptation to their environment. In his own model of children's intellectual development, Piaget described the stages their intellectual development. The first is the sensorimotor stage. In this stage children develop sensory and motor skills. The child tries to understand a new object through its use. The second is the symbolic or pre-conceptual stage. At this stage, the child begins to talk, i.e. the verbal symbols of the mother tongue are learned. It is also at this stage that the child learns the simplest symbolic actions.

According to Piaget, the purer forms of symbolic thinking are considered to be children's play and fantasy. The subsequent formative stage is the intuitive (visual) stage. In this stage, children form their own judgements by emphasizing perception. The fourth stage is one of concrete operations. In this stage, children begin to apply logic to thinking. During the fourth stage, children acquire an understanding of time and speed. At the end of this stage, the child also becomes increasingly aware of relationships between features of objects; this allows him or her to arrange things in space. At this stage, children's thinking becomes most similar to that of adults. The last stage of intellectual development is the formal operations stage. In this stage children can learn all the regularities of problem solving, imagine things that contradict facts, think realistically about the future, form benchmarks and understand the meaning of metaphors, which are inaccessible to younger children.

Thus, based on J.J. Piaget's model, we can conclude that at each of these stages there is a high-quality modification of intelligence, the development of intellectual abilities of children is connected with the correct organization of the learning process.

The level of intellectual development determines the success of learning activities and the effectiveness of learning. It should be noted that students' intellectual abilities are influenced by the social status of the family, mental stimulation, the level of parents’ own educational skills and the nature of their upbringing [19].

Intellectual ability is the most important aspect of personality, which is perfected in activities such as play, learning, work and life situations. In our opinion, the intellectual development of students is manifested in their interaction with the environment (the application of knowledge in practical and theoretical purposes); observation (identification of the interrelation between facts and phenomena); consistency (consistency, disciplined actions); independence (the identification of new regularities in activities). Intellectual development includes a variety of knowledge, cognitive interests, individual abilities and the level of preparation for social life. Development does not occur by itself, but in the process of the interaction between the individual and the environment through learning activities [19].

The features of intellectual development include things like memory capacity, concentration, the ability to predict, imagination, consciousness. The intellectual properties of students are measured by their curiosity, breadth of mind, mobility and flexibility of mind as well as critical thinking.

5 Conclusion

It should be noted that we are living in the era of a digital society, and the concepts of a digital learning environment, online learning, and digital services are actively developing today. A digitally intelligent environment is a set of electronic and informational educational resources for the full implementation of training programs regardless of the location of learners. E-learning today, with the use of Internet-technology, is one of the most common intellectual environments of a pedagogical university. Digital services are information resources that provide the opportunity to learn remotely.
Digitalized education is a borderless space where each learner can choose his or her own sources of knowledge. This form of education includes:

1. Transferring the content of the school curriculum — textbooks, school materials — into an electronic format and creating online courses that enable students to acquire knowledge on their own;
2. Creating a Digital School platform and information resource through which students will have free access to electronic educational content;
3. Equipping schools with the infrastructure (computers, internet access, interactive panels, etc.) to enable teachers and students to use electronic educational content;
4. Visiting electronic libraries and taking virtual excursions.

E-textbooks are becoming one of the main components of the school educational environment and the main tool for implementing the requirements of the new generation of FSES. Today, not only textbooks and fiction are digitized, but also audio applications for textbooks and online simulators and services for teachers to quickly prepare and conduct classes have also been developed [17].

Using modern educational digital technologies, it is possible to increase the efficiency of the educational process by reducing the time needed to check students’ work.

Thus, the digitalization of education opens up new opportunities and creates an awareness of the value of such concepts as digital world and virtual world. The digitalization of education aims to develop students’ research competences, which give them the ability to create digital projects, to be in demand in the labor market in the future, and to be socialized in the new digital environment.

Digital information and communication technologies used in teacher education are aimed at developing the intellectual abilities and personality of students.

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Preparing teachers to use digital resources for preschoolers’ ethnocultural development

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Abstract. The article deals with the problem of using digital educational resources in the professional training of future teachers of preschool educational organizations. In the article, the problem of training personnel for the digital economy is identified and aspects of the use of digital educational resources in preschool education are disclosed showing the approaches of different authors. The purposes for which digital educational resources are used include the formation of safe behavior skills in preschool children, the formation of pronunciation skills in speech therapy classes, the formation of ideas about the world in senior preschool children. Moreover, the digital educational resource of ethnocultural orientation "The virtual tour of the Republic of Mari El" is analyzed, which will help children not only to see all the sights of their native land but also to listen to national songs, perform elementary movements of national dances, create a fairy tale with national heroes, etc. It is noted that the effectiveness of the virtual excursion is largely determined by teachers’ training level. Therefore, the professional training of future teachers of the preschool education system should be focused on the active development and use of various kinds of Internet resources, including those of ethnocultural orientation for the successful solution of their professional tasks. The results of monitoring the digital competence of future preschool teachers are presented and analyzed.

Keywords: digital educational resources, professional training, virtual excursion, ethnocultural educational practice, future teachers

1 Introduction

Currently, the problem of training personnel for the digital economy is particularly topical [1, 2, 3, 4]. Various forums, conferences, seminars are held, where the issues of digital transformation of education, the formation of digital competencies of teachers, and the use of digital technologies among others are considered. The educational process of preschool educational organizations also provides for the use of digital educational resources that ensure the comprehensive development of the personality of preschoolers and prepare them for living in an information society. According to the Federal State Educational Standard of

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Preschool Education, the use of information and communication technologies, including digital educational resources (DER), in the educational process of a preschool educational institution is designed to improve the quality of education and increase motivation for acquiring new knowledge in preschoolers. Digital educational resources include digital photographs, video clips, static and dynamic models, virtual reality and interactive modeling objects, cartographic materials, sound recordings, symbolic objects and business graphics, text documents, and other educational materials necessary for the organization of the educational process.

Some aspects of using DER in preschool education were considered by different authors. In particular, the problems of using digital educational resources for the formation of safe behavior skills in preschool children, the formation of pronunciation skills in speech therapy classes, and the formation of ideas about the world in senior preschoolers are outlined [5, 6, 7].

It should be noted that the problem of using DER in the ethnocultural development of preschoolers and the preparation of future teachers to work in this direction has not yet been sufficiently reflected in modern research. The purpose of our research is to fill this gap and identify the effectiveness of the use of digital educational resources in the ethnocultural development of preschoolers. Consequently, there is a task to prepare future teachers to use digital educational resources in the ethnocultural development of preschoolers.

The introduction of preschool children to the national culture of their people and other peoples is carried out in preschool educational organizations in the traditional form through classes, various kinds of entertainment, contests, reading fiction, visiting museums, exhibitions, etc. Still, it should be emphasized that all this work is often carried out on a knowledge basis in most cases. Moreover, a formal approach is not uncommon when the emotional and activity components of children's ethnocultural development are not used.

We insist on a child's having various ethnocultural experiences and maximizing the use of ethnocultural educational practices in the pedagogical process which include the active participation of children in folk festivals, demonstration of traditions together with adults (teachers and parents), the invention of games and fairy tales based on folklore works, the organization of children's museum expositions, etc.

Unfortunately, the epidemiological situation that has developed in recent years does not enable us to take full advantage of traditional and innovative forms of ethnocultural educational practices. Therefore, we have to make use of the digital training environment and organize virtual excursions, web quests, TV quizzes, and interactive web exercises for children as well as implement cultural information resources, multimedia digital educational resources, electronic simulators, etc. [8, 9, 10].

2 Materials and Methods

Let us analyze the digital educational resource of ethnocultural orientation "The virtual tour of the Republic of Mari El", developed by us for preschoolers. The resource will help children not only see all the sights of their native land but also listen to national songs, perform elementary movements of national dances, create a fairy tale with national heroes, etc. This resource is addressed to preschoolers aged from 5 to 7.

Among the advantages of this digital educational resource is the visual representation of national objects at all possible angles and in detail, demonstration of their characteristics, accessible to the perception of preschoolers. The visual image of the sights of the Republic of Mari El should give children the feeling of a realistic walk, provide an opportunity of reviewing the object that they are particularly interested in, and provide aesthetically designed visibility with musical accompaniment. Another important advantage of this virtual tour is the fact that it takes place right in a preschool educational organization.
The teacher needs to use various methods and techniques for encouraging and teaching pre-schoolers: case studies, game methods (didactic games, traveling through a virtual museum, helping a character), visual methods, verbal methods (introductory and generalizing conversation, questions, and explanations), practical methods (joint work on making crafts and models), and methods of control (analysis of completed tasks and performance evaluation).

The structure of the virtual excursion has all the components of the direct educational activity of preschoolers: 1) greeting; 2) a surprise moment (helping a fairy-tale character, a case study, a task letter); 3) the main part which is a virtual tour with additional demonstration material; 4) outdoor games; 5) health-saving technologies (physical activity breaks and gymnastics for eyes); 6) children’s productive activities (consolidating the material seen and making a memorable souvenir); 7) summing up; 8) reflection.

The information content of the virtual museum will be described using the electronic educational resource The Mari Ethnographic Open-air Museum named after V.I. Romanov in Kozmodemyans, the Republic of Mari El.

Fig. 1. The snapshot of the virtual tour of the Mari village

Figure 1 shows the snapshot of the virtual tour of the Mari village with its architectural structures (a log house (izba), a well, and a barn). To admire the exhibit from all sides, it is enough just to use a mouse or keyboard. If desired, one can zoom the exhibit in or out and look around it. This advantage of the virtual panorama distinguishes it from other visualization tools.
Figure 2 shows the information element of the panorama in which there is a forge. When visiting the virtual open-air museum in Kozmodemyansk, preschoolers involuntarily admire the realism of "walking" around the area, moving from one house to another, approaching the forge, and getting inside it. Later on, the new knowledge and information can be reflected in the children's drawings as well as travel books and moving folders about the forge that they make with their parents.

3 Results and Discussion

It should be noted that the effectiveness of the virtual excursion is largely determined by the teachers' training level. Therefore the professional training of future teachers of the preschool education system should be focused on the active development and usage of various kinds of Internet resources, including the resources of the ethnocultural type for the successful solution of the teachers' professional tasks [11]. Consequently, it is necessary to pay much attention to this area of activity in the professional training of students who are pursuing a bachelor’s degree in Psychological and pedagogical education and whose major is Pedagogy and psychology of preschool education [12,13].

To identify the initial level of future preschool teachers’ readiness to use virtual excursions and other digital educational resources, there was organized a testing procedure in the sections "Digital Culture", "Digital security", "Communication in the digital environment", and "Digital technologies in the professional activity" [14,15].

Table 1. The results of monitoring the digital competence of future preschool teachers.
Knowledge of DER for preschoolers

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<tr>
<th>№</th>
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<th>Knowledge of digital security requirements</th>
<th>Knowledge of digital etiquette rules</th>
<th>Knowledge of modern digital technologies in the education system</th>
<th>Ability to select digital resources and adapt them to the needs of preschoolers</th>
<th>Ability to form media libraries for structured storage and cataloging of digital information</th>
<th>Ability to use various software tools for searching for information</th>
<th>Skills of using digital tools in the educational process</th>
<th>Skills of developing DER</th>
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HL – 4–33 %, high level - has a full digital competence;
IL – 7–55 %, intermediate level – has some components of digital competence;
LL – 1–12 %, low level – does not have digital competence.

Based on the data in Table 1, one can conclude that not all future preschool teachers have the knowledge DER and can use them. The results showed that 33% of future teachers (4 students) have a high level of digital competence. These are the students who know modern digital technologies used in education; understand the requirements of digital security and the rules of digital etiquette on the Internet; have the skills of using DER when working with preschoolers and the skills of using various software tools to search for information and adapting them to the needs of the educational process and the age characteristics of preschoolers as well as the skills of independent development of DER.

55% of future teachers (7 students) have an intermediate level of digital competence. These are the students who have insufficient knowledge of modern digital technologies used in education and who do not clearly identify the requirements of digital security and the rules of digital etiquette on the Internet. They have mainly formed the skills of using DER when working with preschoolers and the ability to use various software tools to search for information and adapt them to the needs of the educational process and the age characteristics of preschoolers. Their skills of developing DER are at the user's level.

1 student (12%) has a low level of digital competence. This student does not have sufficient knowledge about digital technologies in education, the requirements of digital security, and the rules of digital etiquette on the Internet. He does not have the skills of
using DER when working with preschoolers and the ability to use various software tools to search for information and adapt them to the needs of the educational process and the age characteristics of preschoolers as well as skills of developing DER.

4 Conclusion

Thus the results obtained indicate that the preparation of future preschool teachers for work in the modern digital world must necessarily include the development of their digital competence. It is important to include various digital educational resources in the educational process, working with which future preschool teachers acquire not only relevant knowledge, but also develop their skills and abilities to use DER in the ethnocultural development of preschoolers aged 5 and older.

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Use of anglicisms in modern Chinese

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Abstract. The article touches upon an important and relevant aspect of language development – borrowing, which is promising for cognitive-pragmatic research in linguistics. Each language undergoes many changes over time, and linguistic borrowing becomes more active. The research purpose was to review and analyze phonetic, semantic and other types of English borrowings in Chinese. To achieve the above research purpose, the following objectives were solved: 1) to study the types of English words used in Chinese; 2) to conduct a comparative analysis of phonetic and semantic borrowings; 3) to identify the characteristic features of English words borrowed into Chinese; 4) to study the types of anglicisms and classify them according to thematic features; 5) to reveal the role of anglicisms in linguistics. Methods of comparison, theoretical analysis and classification were applied in the study of the material. Based on the study, the authors of the article came to the conclusion that two types of borrowings are used in Chinese – semantic and phonetic ones. The main reason for the emergence of anglicisms in Chinese is related to the fact that there is a need to create new words or expressions to define newly appeared words, objects or concepts. The Chinese language is constantly changing; old words are being replaced by new ones, many of which are borrowed from other languages. English is the main source of borrowings for many languages. In modern Chinese, there are more and more terms, words, and phrases in spoken and written forms that came from English – anglicisms.

Keywords: linguistic borrowing, sinification, phonetic method, semantic method

1 Introduction

Chinese is one of the oldest languages in the world. Many literary works written in Chinese are of great value for world culture and historical development in general [1]. This language is common in Southeast Asian countries such as Thailand, Singapore, Indonesia, Vietnam and others. With the growing importance of China in the world, more and more people are starting to learn Chinese. Moreover, the development of China’s relations with other states also had a significant impact on the Chinese language too.

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The research purpose is to review and analyze phonetic, semantic and other English borrowings in Chinese.

Research objectives are as follows:
1. To study the types of English words used in Chinese.
2. To conduct a comparative analysis of phonetic and semantic borrowings.
3. To identify the characteristic features of English words borrowed into Chinese.
4. To study the types of anglicisms and classify them according to thematic features.
5. To reveal the role of anglicisms in linguistics.

2 Materials and methods

In this work, methods of comparison, theoretical analysis and classification were applied in the study of the material.

The methodological framework of the article is based on the works by Russian sinologists, such as Shchichko V.F. [2], and foreign philologists, such as Megan Eaves [3], Humberto Ansaldo, Matthews Stephen [4] and others.

The main sources of borrowings in Chinese vocabulary are Russian, English and Japanese languages [5]. Borrowed foreign words in Chinese are called 外来义 (wai lai yi), which translates as “meaning from outside” [6]. Being the international and most used language in the world, English has had the greatest influence on the development of the Chinese language [7].

In the history of the Chinese language, since ancient times, borrowings have played an important role in the cultural exchange between China and other countries. For example, economic, scientific and socio-cultural terms borrowed from English found use in Chinese vocabulary due to the beginning of China’s cultural, political and economic cooperation with European countries [8]. However, it is difficult to say what the percentage of anglicisms in Chinese is, since most of the borrowings are not introduced into dictionaries, and the number of anglicisms used by the Chinese is only growing.

3 Results

Thus, during the assimilation of foreign words, “sinification” is carried out using the following methods:
1. Phoneme acquisition. In this method, foreign sounds are changed to similar-sounding Chinese ones, for example, (golf – 高尔夫 gao er fu).
2. Transformation of the composition of a syllable. In this case, a contraction of one of the consonants occurs / a vowel appears between the consonants in the word structure (aspirin – 阿司匹林 asipilin, clone – 克隆 kelong).
3. Changing the length of a word. In English, polysyllabic words are often found, while Chinese words, on the contrary, are monosyllabic or disyllabic, that is why words that come from other languages are reduced to one or two syllables (trade mark – 麦 mai, karaoke – 卡拉 kala).
4. Matching tones. Tone is the most important distinguishing feature of the Chinese language (sofa – 沙发 shāfā).

Since a feature of the Chinese language is hieroglyphic writing, a syllable in a Chinese word is indicated by a certain hieroglyph, but it is also a phonetic and semantic unit. Such a complex structure of the language causes problems when translating foreign words into Chinese, so there are several ways to adapt [9]:
1. **Phonetic method or transcription.** It is a phonetically borrowed word expressed in hieroglyphs. The sound of these words is close to the original word but adapted to the sound rules of the Chinese language by eliminating sounds unusual for Chinese. Here are some examples:

- **Bus** – 巴士 (bashi); **McDonald’s** – 麦当劳 (maidanglao); **Coffee** – 咖啡 (kafei).

Note that all examples in Chinese shown in the text of this article were obtained by studying the Chinese-Russian dictionary [10].

There are three types of adaptation through phonetic borrowing:

1) **Complete.** When fully adapted, a word is almost indistinguishable from the original. The sound of the Chinese word obtained as a result of assimilation repeats the sound of the original word.

- **Jelly** – 者喱 (zheli); **Marathon** – 马拉松 (malasong); **Modern** – 摩登 (modeng), in this example, it should be noted that the word 现代 (xian dai) is currently used.

2) **Incomplete.** This is a situation where an adapted word is phonetically close to the original word, but slight changes are possible.

- **Pizza** – 比萨 (pisa); **Model** – 模特儿 (mote’er); **Hacker** – 黑客 (heike); **Brandy** – 白兰地 (bailandi); **Coca Cola** – 可口可乐 (kekou kele), etc.

3) **Partial.** In partial assimilation, a borrowed word is only partially similar to the original word.

- **Booking** – 宾客 (binke); **Snickers** – 士力架 (shilijia); **Pepsi Cola** – 百事可乐 (baishi kele); **Gene** – 基因 (ji yin), etc.

Moreover, some English words, when adapted into Chinese, retain not only their sound, but also their semantic basis. For example, the English word *bandage* becomes 绷带 (beng dai) (tighten + tape) in Chinese.

Due to the peculiarities of the Chinese language, any phonetic borrowing can lead to a distortion of the original meaning of the word, leading to difficulties in understanding. It is also worth considering that the specifics of Chinese grammar rarely allow borrowing verbs from other languages, that is why most of the borrowed words are nouns. In addition, words in Chinese are mostly disyllabic. Therefore, words consisting of three or more syllables are loanwords, for example:

- **Chocolate** – 巧克力 (qiaokeli); **Motorcycle** – 摩托车 (motuoche); **Caffeine** – 咖啡因 (kafeiyin); **Disco** – 迪斯科 (disike).

Difficulties in translating proper names are also related to the fact that in Chinese a surname is written first, and then a name. As is known, in the West they write a surname first, and then a name. Thus, when translating names into Chinese, this spelling order is preserved. In hieroglyphic writing, they do not put spaces between words, therefore, to understand foreign names, a surname and a name are separated by a dot: Johnny Depp – 约翰尼·德普 (yue han ny · de pu); Calvin Klein – 卡尔文·克莱恩 (Ka er wen · ke lai en); William Shakespeare – 威廉·莎士比亚 (wei lian · sha shi bi ya); Barack Obama – 巴拉克·奥巴马 (ba la ke · ao ba ma).

When translating proper names, a word is often completely adapted into Chinese, for example:

- **Nigeria** – 尼日利亚 (ni ri li ya); **Lima** – 立马 (li ma); **Italy** – 意大利 (yi da li).

However, basically, when translating names, incomplete or partial assimilation is used:

- **Australia** – 澳大利亚 (ao da li ya); **Spain** – 西班牙 (xi ban ya); **Argentina** – 阿根廷 (ag en ting).

2. **Semantic.** This method is also very common. When using semantic borrowing, English words are literally translated into Chinese, therefore this method is often called loan translation. Since the words formed in this way consist of Chinese lexical elements, they
become indistinguishable from the ones in Chinese vocabulary. Most often, this method is used to translate words related to the computer sphere. For example: Email – 电子邮件 (dianzi youjian) (electronic + mail); Smartphone – 智能手机 (zhineng shouji) (intelligence + cell phone); Hot dog – 热狗 (re gou) (hot + dog), etc.

3. Mixed. The mixed method can be phonetic-semantic or semantic-phonetic.

A. Phonetic-semantic method is a combination of the first phonetically borrowed component and the second literally translated hieroglyph. For example: Ballet – 芭蕾舞 (ba lei phonogram + 舞 wu dance); Internet – 因特网 (因特 yin te phonogram + 网 wang network); Champagne – 香槟酒 (香槟 xiangbing phonogram + 酒 jiu alcohol), etc.

B. Semantic-phonetic method, on the contrary, is a combination of the first semantic component and the second phonetic one. Here are the examples: Novosibirsk – 新西伯利亚 (新 xin new + 西伯利亚 xiboliya phonogram); New Zealand – 新西兰 (新 xin new + 西兰 xilan phonogram); Birthday card – 生日卡 (生日 shengri birthday + 卡 ka phonogram), etc.

Despite the fact that experts have studied and analyzed vocabulary borrowed from English, and it was found that phonetic and semantic methods are used equally actively, many linguists argue about which of the two ways of adapting anglicisms in Chinese should be used.

The Chinese linguist Yang Xipeng argued in his work that the phonetic method is the main opportunity in mastering borrowed terms, words and phrases in the Chinese language [11].

In modern Chinese, a popular way to assimilate English words has also become the partial or complete use of Latin letters in a word. Full preservation of the Latin alphabet is usually used when translating abbreviations.

1) Preservation of the spelling of a word in Latin: DVD, DNA, MP3, CD, CEO, UFO, MTV.

2) Use of English words as slang ones. Chinese youth often replace simple Chinese words with English ones, for example: OK (okay), kiss, nice, call, cool, and many others.

Despite the fact that borrowings help in the development of the language, make it more expressive, understandable and diverse, their appearance in the language is often perceived as linguistic degradation.

The emergence of borrowings is also due to the following reasons:

1. The vocabulary of the language is full of archaisms that lose their meaning over time and need to be replaced or updated.

2. Slang plays a special role in modern Chinese society. The West is of great importance in the world. Slang has a strong influence on Chinese youth, therefore, representatives of the Chinese younger generation are increasingly using anglicisms in their speech to communicate.

The most common are anglicisms in the everyday sphere, for example, when translating the names of certain foods or drinks: Coffee – 咖啡 (kafei); Salad – 沙拉 (shala); Cocoa – 可可 (keke), etc.

When translating garments: Bikini – 比基尼 (bijini); Mini-skirt – 迷你裙 (mini qun); T-shirt – t恤 (T-xu); Pea-jacket – 皮夹克 (pijiake), etc.

Other everyday vocabulary words are also often borrowed from English: Shampoo – 香波 (xiangbo); Talk-show – 脱口秀 (tuokouxiu); Hula-hoop – 呼啦 (hula) and many others.

The names of well-known brands are also adapted to the norms of the Chinese language [4]: Armani – 阿玛尼 (amani); BENETTON – 贝纳通 (beinatong); Converse – 匡威 (kuangwei); Nike – 耐克 (naike); Adidas – 阿迪达斯 (adidasi), etc.
4 Discussion

The influence of the English language has also given rise to the phenomenon of “Chinglish” or “Chinese English”. Chinglish is a mixture of English and Chinese, which is more in line with signified English.

In the 17th century, when the Chinese first encountered the English language, the pidgin language arose, it was used to trade with the English. The name “pidgin” arose in connection with the misperceived and mispronounced English word “business”. Pidgin English was most widely used in 1839-1842 during the first two opium wars, but already at the end of the 19th century it began to lose popularity, this was due to the beginning of teaching literary English in schools [12].

In modern China, Chinglish is widespread and often expressed as a semantic adaptation of English words or expressions, for example: instant / quick-dissolving (coffee) – 速溶速溶 (咖啡 kafei) 萧quick + 溶dissolve.

In 2005, Xu Ch. defined the term “Chinglish” [13]. His point of view is that Chinglish is an evolving variant of the English language that is constantly undergoing processes of codification and normalization. It is based on two main varieties of English, namely British English and American English. It is characterized by the conveyance of the features of the Chinese language and cultural norms at different language levels. Basically, Chinese English is used for internal and international communication [14].

The experts identify several causes of emergence of Chinglish [11]:
1. The use by the Chinese of outdated textbooks and dictionaries when learning English.
2. Poor quality language teaching, teachers with a low level of English proficiency.
Chinglish usage should also be indicated:
1. Limited number of English speakers.
2. The use of literal translation by the Chinese.
3. The use of machine translation without editing or editing of translated texts by non-native speakers.
4. Cultural differences between China and Western countries.
5. The peculiarity of Chinese upbringing is to preserve the linguistic traditions of speaking English without correcting common mistakes [15].

Nowadays, despite the attempts of the Chinese authorities to reduce the use of Chinglish, little success has been achieved so far. The ability to reduce the influence and use of Chinglish in China lies in the appropriate approach: using modern, well-written English textbooks, involving more native speakers in teaching, emphasizing the practice of speech perception and speaking when learning the language.

5 Conclusion

Based on the study, it should be noted that in the Chinese language, two types of borrowings are mainly used – semantic and phonetic ones. Due to the peculiarities of the Chinese language, semantic borrowings predominate among anglicisms, most of the borrowings in Chinese are the words and expressions literally translated and adapted to Chinese. The main reason for the emergence of anglicisms in the Chinese language is due to the fact that over time there is a need to create new terms, words or expressions to name new words. Recently, more and more words borrowed from other languages have appeared in Chinese, but this in no way indicates the penury or limitedness of the Chinese vocabulary. It primarily demonstrates the scale of political, cultural and economic ties with other states, in particular with the British and Americans.
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Use of distance educational technologies as an innovative trend in foreign language teaching

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Abstract. The research refers to distance learning technologies used in foreign language teaching, which takes on increasing importance in the contemporary conditions for the development of higher education in Russia formed by the current COVID pandemic, as well as fast-paced digitalization of all spheres of life in our society. Widespread introduction of distance learning as well as blended learning into the educational process of universities determined the purpose of our research aimed at studying distance learning technologies as an innovative trend that forms the basis for the development of these learning models. The study made it possible to clarify the essence of the concepts of “distance learning technologies”, “distance learning”, “blended learning”, highlighting their main characteristics and essential features, to determine the didactic specifics of synchronous and asynchronous use of distance learning technologies. As part of an empirical study, distance learning technologies used in foreign language teaching at Kuban State University (Krasnodar, Russia) were studied, characteristic didactic aspects of their application were identified, advantages and disadvantages were evaluated. The results of the study of the educational potential of distance learning technologies are of theoretical and practical significance in planning and organizing distance and blended learning of a foreign language.

Keywords: distance learning, blended learning, distance learning technologies

1 Introduction

The increasing use of distance learning technologies (hereinafter referred to as DLT) is the global innovative trend of the modern global educational space as part of the full or partial transition of educational institutions to distance learning due to the current covid pandemic.

The new nature of social and pedagogical realities which has developed in connection with the adopted anti-epidemic measures, as well as with the processes of digital transformation of the higher education system, determines the relevance of the study of DLT, the need to study the experience of their use in the practice of higher education.

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The Federal Law “On Education in the Russian Federation” gives the following definition of DLT: “educational technologies implemented using information and telecommunication networks with indirect (at a distance) interaction between students and teachers”. The purpose of using DLT by an educational institution is to “provide students with the opportunity to master educational programs, regardless of the student’s location.” Depending on the method of communication “student – teacher”, DLT are divided into intertwining Internet technologies, telecommunication technologies and case technologies.

In pedagogical science, the following definition of the concept of “distance learning” has been formed: a learning process “based on the use of modern information and telecommunication technologies that allow learning at a distance without direct contact between the teacher and the student” [1]. The generalization of existing approaches to the problems of distance learning [2, 3] allows to identify the following main characteristics: dynamism, modularity, differentiation, interactivity, activation of independent work of students. The form of interaction between a teacher and students among themselves implies their physical separation in time and / or space, the learning process is organized within the framework of the electronic information and educational environment based on the use of DLT.

Introduction of DLT into the conventional face-to-face contact model of pedagogical activity is an innovative trend in its development, expanding its capabilities. The intensive use of DLT, which complements the face-to-face contact model of learning, contributes to the formation of a blended learning model. This integration provides subjectivity, mobility, interactivity, flexibility, accessibility of the educational process, stimulates its openness and contributes to the formation of information and communication competence of the student.

We assume that today the use of DLT is a fundamental innovation trend that determines the development of higher education in distance and blended learning models.

The need to study DLT as the basis of distance and blended learning determined the objectives of our research:

– to clarify the content of the concepts of “distance learning technologies”, “distance learning”, “blended learning”, by analyzing the role of DLT in the implementation of distance and blended learning models, to identify the main characteristics and features of DLT when used in these learning models;

– to study the experience of the practical application of DLT in foreign language teaching at Kuban State University in 2020-2021, to determine the didactic specifics of the synchronous and asynchronous use of DLT, to define the applied DLT, to identify their advantages and disadvantages.

### 2 Methods

To solve the tasks set, the following methods were used: observation, analysis, synthesis, pedagogical interpretation of scientific information, methods of qualitative and content analysis, structural and functional analysis of the results.

As part of a theoretical analysis of modern scientific approaches to DLT and existing pedagogical studies of distance and blended learning, the essence of these concepts was clarified, the characteristics of DLT were presented, where the development of DLT was considered as the main innovative trend in optimizing the educational process in modern conditions.

In the course of an empirical study of DLT used in foreign language teaching, the practice of their use in teaching this discipline to students of non-linguistic specialties at KubSU was studied. Based on the method of qualitative and structural content analysis, a comprehensive analysis of educational materials, educational documentation of the Department of English in the professional field was carried out. The results obtained made
it possible to identify the main problems and advantages of using DLT in foreign language teaching.

3 Results

The results of the study demonstrate the difference in the content of the concepts of “distance learning” and “distance learning technologies”. DLT are the basis on which the functioning of distance learning is built; without the use of DLT, distance learning cannot be implemented. The specificity of DLT lies in the fact that they can be used not only in the implementation of distance learning, but also within the framework of the traditional face-to-face contact educational process, and DLT can be effectively used in organizing students’ independent work as well.

The integration of DLT and the face-to-face contact form of education leads to the formation of a blended learning format. In the course of studying the existing approaches to the problem of blended learning presented in the research works of Russian and foreign authors [4-7], the following definition of the concept of “blended learning” was given:

a learning process that combines three components: face-to-face contact learning with direct interpersonal interaction between students and a teacher; distance learning which includes elements of independent control by the students of their own educational trajectory, choice of time, place and pace of learning; as well as autonomous self-study of students using electronic resources and information and educational environment.

The blended learning format is used to intensify and optimize the conventional forms of the pedagogical process, as well as in the implementation of educational activities in the context of partial restrictive sanitary and epidemiological measures that are being taken all over the world today.

The data obtained in the study of the experience of the practical application of distance learning technologies in foreign language teaching to students of non-linguistic specialties at Kuban State University (2020-2021) demonstrate that with the forced transition of the university to distance learning in March 2021, the transformation of the conventional educational process into distance learning was carried out efficiently and in the shortest possible time. At the same time, the conventional face-to-face contact learning process was not simply copied and moved to the online environment, but transformed and translated into a distance learning format based on an analysis of the possibilities and potential of DLT. To accomplish this task, the teaching staff of the university studied and mastered new DLT, and then competently introduced them into the educational process.

To implement distance learning at KubSU, DLT are used based on the resources of the electronic information and educational environment of the university, the Microsoft Teams digital educational platform for synchronous and asynchronous interaction of participants in the pedagogical process, as well as the Moodle virtual learning environment for asynchronous educational activities.

A comparative analysis of the use of DLT in synchronous and asynchronous modes of organizing distance learning of foreign language shows [8, 9] that the asynchronous approach is more focused on the independent cognitive activity of students and imposes higher requirements on the preliminary preparation of educational materials. In addition, this approach is more time-consuming for the teacher, since the teacher needs to select educational material, analyze its educational potential, structure and adapt it to solve certain didactic tasks, and then upload it to the educational platform.

Another specific feature of asynchronous distance learning technologies is the specialized quality control of students’ learning activities. For example, it can be implemented in the form of computer-assisted testing, performance of interactive tasks that control the level of formation of foreign language competence. As a result, a statement is
automatically formed that takes into account the grades received by each student for completed assignments and tests, the level of their activity in the implementation of group and project activities, participation in forums and discussions. Analysis of the generated information of this statement allows to control and regulate all stages of the educational activities of each student.

Today, Kuban State University has switched to a blended learning model, the effective use of DLT playing one of the leading roles in its effective implementation.

The results of the study demonstrate that the advantages of using DLT in foreign language teaching include the obvious expediency of their use in solving certain didactic problems.

Thus, for the development of speech skills as a condition for the formation of foreign language communicative competence, distance technologies provide inexhaustible resources of the electronic and online environment, including foreign language authentic materials (text, audio, video, media, interactive materials on any topic of interest), reference materials and opportunities to search and select information for the purpose of its further use to solve the tasks. The use of remote info-telecommunication and media technologies allows expanding the language environment, increasing interest and motivating students to study a foreign language, stimulating the formation of lexical and grammatical competencies, communication in a foreign language.

An analysis of the practice of using DLT in organizing project activities in foreign language teaching demonstrates their efficiency, especially given their wide opportunities for students to create their own media product in a virtual educational environment in a foreign language. Examples are creation and performance of a multimedia presentation, creation of digital stories (digital storytelling) on professionally oriented topics [10]. The study showed the high potential of collective creativity in the course of joint group forms of foreign language teaching implemented in virtual reality [11], using electronic, digital distance learning technologies. Virtual interactivity, student-student and student-teacher interaction in the context of this approach are built on the principles of joint creativity and cooperation.

4 Discussion

In modern Russian and foreign scientific studies on DLT, there is an intense discussion of their role in the pedagogical process, where, along with problem areas, their high educational potential is emphasized, their exceptional effectiveness in countering the pandemic caused by COVID-19 is noted [12-14].

An analysis of pedagogical theory [3,15] and practice shows that, within the framework of distance learning, DLT provide the following advantages: the possibility of learning at any distance from the teacher, at a convenient time, at a comfortable pace; the possibility of obtaining education in several areas at the same time or the possibility of obtaining additional education simultaneously with the major one; training takes place in a more relaxed and comfortable environment; high level of differentiation and personalization of the educational process; electronic information and educational environment provides access to a wide variety of educational and educational literature; reducing the financial costs of the educational institution when organizing distance learning.

Taking into account the positive aspects of distance learning, agreeing with the didactic validity of its use in modern conditions, studies show [2, 3, 12] that distance learning still cannot fully replace the conventional face-to-face contact learning process. Blended learning built on the integration of DLT into conventional learning, combining all the advantages of distance and face-to-face contact models, is considered today as the most promising and pedagogically expedient form of education.
5 Conclusion

The results of the study confirm our assumption that the introduction of distance learning technologies in the educational process is an innovative trend in the development of modern higher education in the models of distance and blended learning. DLT are the basis for the functioning of distance learning, playing a significant role in the implementation of blended learning. The optimal use of DLT in the framework of both distance learning and blended learning is today the most important condition and indicator of effectiveness of the pedagogical activity of higher education institutions.

The study of the practice of using DLT in foreign language teaching to students of KubSU revealed negative and positive aspects of their application.

A significant disadvantage of DLT is the possibility of their optimal use only under certain conditions: availability of a modern computer equipped with a camera and appropriate software, accessibility of the high-bandwidth Internet, an efficiently functioning electronic information and educational environment of the university, a high level of formation of students’ and teachers’ info-communicative competence.

The indisputable advantage of the use of DLT is their high efficiency in the formation of the autonomy of student learning, the development of independent work skills. Education using DLT requires the students to be independent and responsible in making decisions when planning and adjusting their own trajectory of education. With the help of DLT, an individual approach is successfully implemented, which contributes to the removal of psychological difficulties in the in mastering the academic material, allows taking into account the students’ capabilities, their intellectual abilities.

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Information and communication technologies in foreign language lessons in high school

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Abstract. The article deals with the use of new forms and technologies of work at foreign language lessons in high school. The aim of the research was to reveal the potential possibilities and conditions of using information and communication technologies as a means of activating cognitive activity of students in the process of teaching a foreign language in high school. In the process of research, the authors relied on the following methods: the study and analysis of a body of work on the problems of implementation and use of information and communication technologies in the educational process, analysis of technical capabilities of ZOOM platform, testing, comparison of English learning results in two parallel classes, statistical analysis method for processing the results obtained during the experimental part of the study. The study shows that information and communication technologies (ICT) are a powerful pedagogical tool in the hands of the teacher. Foreign language lessons with the use of information and communication technologies are an effective means of developing all kinds of speech activity. During such lessons an atmosphere of real communication is created, when students strive to express thoughts “in their own words”, willingly perform tasks, show interest in the material studied. The use of information and communication technologies during the ZOOM lessons not only reduces the time for understanding the material, but also increases the effect of using different visual aids.

Keywords: English language, learning, ZOOM platform, individualization of learning

1 Introduction

The tendency to humanization and individualization of the educational process leads to the need to find new technologies of interaction with students during foreign language learning in high school.

The relevance of this study lies in the fact that despite the existence of many works on this subject, the question of the use of information and communication technologies (ICT) in foreign language lessons in high school (distance format) remains controversial.

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The methodological basis of the study consisted of the works of E. B. Belyaeva, M. Galishnikova, N. D. Galskova, I. G. Kochergina, A. S. Kudelko, E. S. Polat, E., Sysoev P. V. and other scientists.

The hypothesis of this study was the assumption that the use of ICT would allow the teacher to conduct foreign language lessons in the upper grades more effectively, increase the effectiveness of work and students’ interest in learning the language with the effective use of Zoom platform.

The purpose of the study was to identify the potential opportunities and conditions of using ICT as a means of activating cognitive activity of students in the process of teaching a foreign language in a distance form of high school.

The objectives of the study were as follows:

- to explore the didactic possibilities of ICT in the process of teaching a foreign language in high school;
- to explore the possibilities of ZOOM platform for using ICT during distance learning lessons;
- to adjust the curriculum for distance learning lessons;
- to prepare and conduct an experimental and practical research according to the hypothesis;
- to process and systematize the results of the research.

2 Methods

The authors identified a corpus of research methods to verify the effectiveness of the use of ICT in distance learning lessons in high school.

1. The analysis of scientific works on the topic of the study showed that the use of ICT in foreign language lessons in high school is an integral part of the educational process in modern conditions. As any other process, the educational process has a certain structure and hierarchy of elements, presented in the works of B. S. Gershunskij [1]. The presented hierarchy best reflects the possibilities of modern “digital learning” from the standpoint of process and result. In this regard, the modern teacher has a difficult task of not only understanding the essence of digitalization in the educational environment, but also carrying out pedagogical interaction with the help of digital environment in general. The very notion of digital learning means learning, the essence of which lies in the patterns, principles and mechanisms of mastering subject knowledge, abilities, skills and competencies by students, including the use of a computer [2].

At the present stage, the lesson with the use of ICT is becoming a reality of the educational process, which actualizes the issues of their effective use [3].

Due to the possibility of using ICT in English lessons, the teacher creates favorable conditions for increasing the effectiveness of cognitive activity [4]. One of the most important factors to improve the quality of learning is the organization of purposeful interaction between teacher and students both individually and as a group. The study of didactic features of ICT led the authors to the idea that the range of interactions both between students and between students and teacher can be greatly expanded with the active use of ICT. Consequently, the quality of learning will also increase. A.S. Kudelko considers the following didactic possibilities of ICTs to be the main didactic ones:

1. implementation of interactive dialogue between the student and the teacher through an Internet platform such as ZOOM;
2. visualization of learning information about the process or object being studied, thanks to which there is a visual demonstration of the studied object on the computer screen
3. storage of large amounts of information (audio, video) in a digital format with the possibility to access it easily and to transfer it over any distance;
4. automation of the processes of learning activities as well as processing the results of educational experiments;
5. automation of the learning activities management and control of the results of students’ information processing, their success in learning, testing; automation of information interaction between participants in the educational process in an educational institution [5].

Didactic capabilities of ICTs are, in fact, limitless. One of the actual possibilities of ICT is visualization of information. E.S. Polat mentioned geotagging function, which is present in any modern smartphone [6]. The definition of this Internet function is as follows: geotagging (from the Greek “geo” – land and “tag” – tag) is a function that allows linking to photos the coordinates of the location where they were created [7]. E.S. Polat emphasized that the main thing is to know the didactic properties of this function to correlate them with the corresponding learning objectives.

2. The study and synthesis of pedagogical experience allowed the authors to propose using the geotagging function to organize and conduct a GPS project for high school students in English lessons. This project can be developed and conducted as part of the study of the “Holidays” topic (Holidays, vacations), presented in module 5 of the Spotlight 10 (English in Focus) teaching package by V. Evans, D. Dooley, O. V. Afanasyev, I. V. Mikheev, B. Obi [8] and the “Travel” topic, presented in module 8 of the Spotlight 11 (English in Focus) teaching package by the same authors [9].

The names of the project can be different with “My GPS vacation” or “Virtual tour of my hometown” being some of examples. The essence of the project is that students have an opportunity to activate their vocabulary knowledge on the topics with the help of modern ICT and bring the project to life [10]. The authors note that the project can be both individual and group. The didactic possibilities of ICT in general, and in this example, are obvious. Students not only collect and process information, but also visualize it in the form of GPS-coordinates, photos, etc. The effect of presence is created (for example, we can “go on a trip to any city” in the lesson), the feeling of reality of events, the formation of motivation, interest, and desire to learn and see more [11]. It is important to emphasize that didactic capabilities of ICT in this kind of tasks allow solving meta-disciplinary tasks as well, if we are talking about searching for information about a hometown, historical facts, places and personalities.

Without any doubt the use of ICT helps the teacher to increase the efficiency of the lesson, reducing the time to explain the material, thus increasing the speed of comprehension.

3. Organizing and conducting experiential learning involved selecting an experimental base, selecting participants, determining the curriculum, conducting research, processing, analyzing, and interpreting the results.

4. Testing involved identifying the initial and final level of students’ knowledge. It allowed determining the effectiveness of mastering the material in the conditions of distance learning on the ZOOM platform.

5. Statistical analysis of the results made it possible to process, summarize and visualize the data of the study in graphical form.

3 Results

An experiential learning activity was organized and conducted in the 10th grade after studying the theoretical foundations of using the ICT and the specifics of its implementation in the educational process. The goal of the experiential learning was to find out whether distance learning using ICT could be as effective as face-to-face classroom learning. The experiential learning was conducted in Lyceum No. 2 in Pavlovsky Posad.
The 10th grade classes were chosen for experiential learning. Class 10A (15 people) was full-time at the school. The equipment of the classroom allowed using a laptop and a projector. Grade 10B (15 students) studied remotely on the Zoom platform due to high viral morbidity. Both classes were working with the English in Focus teaching package for grade 10.

Experiential research was conducted in three stages:

Stage 1 – ascertaining. At the first stage an initial test was conducted, which used ICT to check the level of language competence of students in both classes. Students were asked to perform control lexical and grammatical tasks in the Skysmart interactive workbook on Strong Ties module 1[12]:

1. match pictures with body language idioms (Figure 1);
2. complete the sentence by forming the right adjective using suffix (Figure 2);

![Fig. 1. Task 1. Match the pictures with the body language idioms [12].](image1.png)

![Fig. 2. Task 2. Complete the sentence by forming the right adjective using suffix [12].](image2.png)

Each correct answer was scored 1 point. The maximum number of points for completing two items is 12. Test scores were converted into the traditional rating system, namely, 12-13 points corresponded to a rating of “excellent”, 9-11 points to a rating of “good”, 5-8 points to a rating of “satisfactory”. A score of less than 5 corresponded to “unsatisfactory”.

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**Notes:**

1. E.S. Polat pointed out that the definition of this Internet function is as follows: “tag” is a function that allows linking the data of the study in graphical form.
2. The equipment of the classroom was described as being rated “satisfactory”.
3. Both classes were working at the same level, as indicated by their performance in the initial test.
4. The didactic properties of ICT were emphasized as being limitless, with examples given such as the “Travel” topic.
The results of the entrance test showed that students in both classes had difficulty in completing task No. 1 when translating English equivalents. This indicates a lack of basic knowledge. Task No. 2 did not practically cause any difficulties since the topic of word formation was learned by the students quite firmly.

Fig. 3, 4 show the results of the initial testing of students in both grades.

**Fig. 3.** Results of initial testing of students in the control group (10A). Source: Compiled by authors.

**Fig. 4.** Results of initial testing of students in the experimental group (10B). Source: Compiled by the authors.

In the experimental group, the average percentage of successfully completed tasks (the number of “good” and “excellent” grades was taken into account) was 33%. The rate for the control group was 47%.

Figure 5 shows the results of initial testing for students in both classes.

**Fig. 5.** Initial testing results for students in both classes. Source: Compiled by the authors.

Stage II – Formative. At this stage, experiential learning in the experimental class (10 B) was conducted remotely on the ZOOM platform using ICT. For this purpose it was
expedient to correct the curriculum of the module 2 Living & Spending, the English in Focus textbook for 10th grade, designed for 14 hours of classes. The adjustment of tasks was carried out taking into account the possibility of the ZOOM platform and ICT tools.

An example of modified tasks is provided in Table 1

Table 1. Adjustment of tasks in the English language textbook for the 10th grade. Source: Compiled by the authors.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Teaching package tasks</th>
<th>Adjusted tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Young British Shoppers” (Reading and Listening comprehension)</td>
<td>Reading the text. Ability to navigate through the read text with understanding of the main content.</td>
<td>Listen to and read the text, underline unfamiliar words, repeat the text after the speaker. Practice new vocabulary at home on the electronic Quizlet cards.</td>
</tr>
<tr>
<td>“Free Time” (Listening comprehension and speaking)</td>
<td>Understand the main content of the text (weather forecast, program guide, airport announcements) and highlight meaningful information; maintain and finish the conversation in a created situation of communication based on what has been heard, observing the norms of speech etiquette.</td>
<td>Listen to the audio-text twice, write out difficult words and expressions (each student writes the most difficult word into the chat, thus creating a cloud of words needed for memorization on the virtual board.</td>
</tr>
</tbody>
</table>

Particular attention was paid to the possibility of practicing listening and reading skills, as well as the ability to perform tasks in real time, followed by an analysis of errors and a breakdown of possible answers. Also, to consolidate the lexical material students were offered tasks developed on Quizlet – the service for memorizing words [13].

Thanks to the screen demonstration function it was quite easy and fast to ask all students. For written work, students used Padlet – the virtual blackboard [14], where they could see the process of completing assignments in real time.

Stage III was the control stage. At the final stage, students from both classes took a final test. The material for testing was selected in accordance with the passed material of module 2. The Skysmart Class online service was used for the convenience of testing. Students were asked to complete two tasks.

1. Match the words to each other to form a word combination

<table>
<thead>
<tr>
<th>household</th>
<th>message</th>
</tr>
</thead>
<tbody>
<tr>
<td>text</td>
<td>loan</td>
</tr>
<tr>
<td>student</td>
<td>chores</td>
</tr>
<tr>
<td>thank you</td>
<td>note</td>
</tr>
<tr>
<td>action</td>
<td>shot</td>
</tr>
<tr>
<td>start</td>
<td>fate</td>
</tr>
</tbody>
</table>

2. Choose the correct answer.
A: Don’t you think it’s harmful to eat junk food every day?
B: Oh, really where?
B: You are right!
A: How about visiting grandma in the evening?
B: Good idea! I can make a pumpkin pie!
B: How did the gym go?
A: I’m on my way to the market. Fancy joining me?
B: It’s five o’clock.
B: Sure! Why not?
A: Would you rather play tennis or badminton?
B: I prefer playing with a ball today.
B: I’d love to go on Saturday.
A: Are you interested in going to the rock concert?
B: I much prefer country music.
B: I’m not keen on fishing.
A: Would you like to go to an opera play?
B: I’d love to but I’m afraid I can’t.
B: By the way, when does the lesson start?

Students were given 1 point for each correct answer of the final test. The maximum score for the first and second tasks was 12 points.

The results of the final testing are as follows (see Fig. 6, 7).

![Fig. 6. Results of final testing of students in the control group (10A). Source: Compiled by the authors.](image1)

![Fig 7. Results of final testing of students in the experimental group (10B). Source: Compiled by the authors.](image2)

The achievement of students in the experimental group improved significantly. The overall percentage of assignments completed with “good” and “excellent” marks was 74%. The result of the controlled group was 67%.

Figure 8 shows the comparative results of the initial and final testing of students in both classes.
Thus, the conducted experimental and practical training, aimed at identifying the potential use of information and communication technologies when working on the ZOOM platform as a means of enhancing the cognitive activity of students in the process of teaching a foreign language in high school, gave a positive result and proved its effectiveness.

4 Discussion

According to the results of the study, the active use of ICT in conducting English lessons remotely using the ZOOM platform is methodologically justified in high schools. Moreover, the use of various online servers to perform lexical and grammatical tasks, tasks aimed at working out the skills of writing, listening, and speaking allows not only increasing motivation to learn the language, but also improving the results of mastering one or another topic. It became obvious that at the current stage of formation of the educational system, teachers simply need to move away from traditional forms of learning by adjusting the curriculum and introducing ICT into the learning process to increase student motivation.

5 Conclusion

After analyzing the results of experimental and practical training, the authors are confident that the use of information and communication technologies allows:

1. providing positive motivation for learning;
2. increasing the amount of work carried out at a lesson by 1.5-2 times;
3. improving knowledge assessment;
4. organizing the learning process rationally, increasing efficiency of the lesson;
5. providing access to different reference systems, electronic libraries, and other information resources during the lesson.

Information and communication technologies simplify the process of presenting the material in many ways and help strengthening the practical orientation of the lessons, which is very important for older students, considering their age and individual characteristics.

It is obvious that ICT is a powerful pedagogical tool in the hands of teachers, which must be skillfully used [15].

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The hierarchical structure of the derivational field of affixoids in English

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Abstract. The scientific paper contributes to developing new classifying models of affixoids in the English language. The aim of research is to demonstrate that affixoids represent the solid lexical unity which can be categorized as the word-formative field consisting of two micro-fields, namely suffixoids and prefixoids. The methodology of this research consists of a wide range of varied methods including structural-semantic analysis, derivational and component analysis, method of immediate constituencies analysis, contextual analysis, quantitative and contrastive analysis as well as the continuous sample method. Based on our research we affirm that affixoids can be described as a distinct way of word formation, and their peculiarities can be identified using the theory of derivational fields. As a result of studying affixoids the hierarchical structures of the micro-fields of suffixoids and prefixoids have been developed. The affixoids which represent a separate way of word-building can be determined as the derivational field, parts of which consist of two micro-fields of suffixoids and prefixoids with their own core, pre-core and periphery areas.

Keywords: affixoid, suffixoid, prefixoid, word formation, micro-field

1 Introduction

Semantic aspects of derivational models are the object of general interest in linguistics. There are many issues which are to be defined more precisely or be reconsidered, such as the status of derivational units, their place in the hierarchical system of word formation, the criteria of referring word formation lexemes to the particular category, atypical derivational meanings of word formation lexemes, the integrated analysis of derived words.

Traditionally, they distinguish between five major morphological processes involved in producing new words in English – affixation, compounding, symbolism, reduplication and suppletion. However, the distinctive feature of English word building system is the occurrence of word formation elements of the mediate status, so called semi-affixes or affixoids. Affixoids are the group of morphemes which have a transitional status in between derivational affixes and stem morphemes.

The linguists who were the first to mention affixoids in their research are Stepanova M.D. and Marchand H. Stepanova M.D. introduced the category “affixoids” as such semi-
affixes – such word formation entities which are involved in the word formation, are able to alter the primary meaning and identical to affixes [1]. Marchand H. defined semi-suffixes as units which have a midrange position between suffixes and contentives [2].

In subsequent research, there has been made the attempt to define the term “affixoids” unambiguously. Linguists mostly tend to consider affixoids as the mediate category which includes both prefixes and suffixoids and is between lexemes and affixes, more precisely between unbound stemmed words and affixes [3]. The similar definitions offered are the following: affix-like compound elements [4], constituents with high degree of productivity behaving like affixes [5]. Though, there is even a point of view that affixoids cannot be named the intermediate category between stems and affixes because affixoids the languages which are characterized by the extensive word formation opportunities may come from stemmed words and affixes as well [6]. The bound meaning of affixoids is another controversial question: while linguists usually designate affixoids as the words with bound meanings, there is a view that it is possible for affixoids to be represented not only by bound units but also by unbound ones [7].

As we can see, there is only one property that unifies all the definitions – the “affix-like” nature of affixoids which makes affixoids an in-between category. Many researchers also put forward the semantic bleaching of compound constituents as a defining criterion for affixoids [8-10]. Hence, the biggest challenge is to separate units which can be explicitly termed “affixoids”. Researchers are trying to find out if affixoids belong to the separate and independent word building type. The classifying models of affixoids are also the sticking point here.

There is some discussion about whether the development of affixes out of compound constituents can be accounted for as grammaticalization and / or (lexical) constructionalization [10]. Another crucial question which needs an answer is whether the general category of affixoids could be considered on synchronic grounds as an independent one, parallel to that of stems and affixes, or it is a rather diachronic byproduct, strictly depending on the blurred boundaries of these [11].

In Russian contemporary linguistics, the most comprehensive definitions of affixoids were given by E.S. Dyachkova and N. V. Gruzdyeva. Affixoids are the word formation elements which coincide with a simple rooted word in their form but possess the functional-semantic features of a derivational affix; as a rule, they have a more generalized meaning and build the representative derivational lines [12]. By affixoids are meant such productive elements which coincide with the base lexem and have the well-defined etymological correlation with it; they possess a high word building activity, a pretty accurate word-building meaning but retain their lexical meaning and therefore can be used independently [13].

Some linguists rightly point out that research on affixoids has mostly been devoted to this phenomenon in such languages as German, Dutch and Swedish. But there is a lack of examining the exclusive features of affixoids in other languages with productive compounding. For English, for instance, there is little to no systematic research considering English affixoids [3]. However, due to such phenomenon as the economy of language means this way of word-formation is highly productive [14].

That is why this research is relevant and currently important. Its scientific novelty contributes to filling the gaps in the conceptual foundation affixoids as a unique phenomenon in English. We are going to prove that the totality of affixoids must be considered as the cohesive lexical entity which possesses the unique complex of related semantic features and can be classified as the word-building field with its own hierarchy including two micro-fields of suffixoids and prefixoids, which partially overlap and have unclear and obscure borders. That is the general goal of our research.
2 Materials and methods

The methodology of this research is based on applying the following methods: derivational, structural-semantic and componentized types of analysis for determining semantic peculiarities of lexemes; method of immediate constituencies analysis; contextual analysis for studying the behavior of lexemes in different contexts; quantitative and contrastive analysis for providing quantitative characteristics of the lexemes and for comparing them. In total, the research material includes 54 affixoids and 2345 lexemes with affixoids, which were selected from the Internet mass media sources, Discussion Boards and English dictionaries by means of implementing the continuous sample method.

3 Results

In our paper we argue that it is appropriate to characterize “affixoids” as a separate way of word-building, and to describe their features in terms of the theory of derivational fields. When analyzing a micro-field of suffixoids we discriminated three groups of semi-affixes. The first group which form the core area are morphemes originated from simple lexemes of Anglo-Saxon origin, characterized by high incidence in the word formation process, great deal of desemantization comparing with the corresponding free lexeme, and ability to acquire a new lexical meaning lacked in the original lexeme.

The second group – the pre-core area – are derived morphemes which are quite productive, but their ability to coin new words is restricted. For example, the morpheme -conscious has been desemanticized and acquired some independent lexical meaning. It is also very productive in the current word-building. But the combinability of this morpheme has some semantic restrictions as it is combined only with bases with a lexical meaning of fashion, art, ecology, politics, health and social issues, and still has the ability to unfold in a motivating word combination.

The third group which we refer to the periphery are mostly derived morphemes which are also productive in the modern word-building process, but desemanticizing level is low, and new word-formations are easily unfolded into a motivating phrase.

Prefixoids also form a micro-field with its own core, pre-core area and periphery. The core area are simple morphemes of Anglo-Saxon origin coinciding in their form with an oonymous lexeme functioning in the modern English language. They are noticeably desemanticized and acquired a similar but more generalized lexical meaning. The pre-core area mostly consists of terminology elements. Derived bases, which in their turn can be added both to simple and derived bases are referred to periphery zone, as they are desemanticized and their lexical meanings are closely tied to the homonymous lexeme.

There is a group of morphemes which do not have a corresponding lexeme in the modern English language, but are the parts of a lexeme, “broken off” in the process of the language functioning. They are mostly morphemes of Latin and Greek origin, widely used in the process of the formation of terms but not restricted to such. Some of them also have the ability to join bound root morphemes, which also distinguishes them from semi-affixes. We can also distinguish a core, pre-core area and periphery here. According to their distributional position, they can also be divided into semi-affixes and semi-prefixes. If to analyze them according to the criteria of productivity and desemantization, one can distinguish morphemes of Greek and Latin origin with wide incidence in the word formation process. These are such morphemes as macro-, micro-, tele-, -logy, -graphy, nano-, cryo-, eco-, bio-, etc. They are of Latin and Greek origin, highly productive and are used in the coining of nonce-words.
Close to that group is the group of parts of words or words of Greek and Latin origin with low degree of desemantization but high degree of productivity in coining terms. These morphemes belong to the pre-core area.

And the third group consists of parts of portmanteau words, which “broke off” from words of modern English language and are involved in derivational patterns on their own. We consider this group as the periphery of the micro-field because they do not have a corresponding lexeme and formally do not correspond to all the criteria of affixoids taking the intermediate position between root morphemes and affixes.

The following tables schematically show the approximate structure of the micro-field of suffixoids and prefixoids respectively.

Table 1. The word-building micro-field of suffixoids.

<table>
<thead>
<tr>
<th>Core area</th>
<th>Pre-core area</th>
<th>Periphery</th>
</tr>
</thead>
<tbody>
<tr>
<td>-free</td>
<td>-worthy</td>
<td>-friendly</td>
</tr>
<tr>
<td>-like</td>
<td>-conscious</td>
<td>-minded</td>
</tr>
<tr>
<td>-rich</td>
<td>-rage</td>
<td>-related</td>
</tr>
<tr>
<td>-proof</td>
<td>-manic</td>
<td>-ridden</td>
</tr>
<tr>
<td>-man/-person</td>
<td>-tomy</td>
<td>-led</td>
</tr>
<tr>
<td></td>
<td>-logy</td>
<td>-intensive</td>
</tr>
<tr>
<td></td>
<td>-cracy</td>
<td>-derived</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-based</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-linked</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-gate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-holic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-thon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-rama</td>
</tr>
</tbody>
</table>

Source: compiled by the authors.

Table 2. The word-building micro-field of prefixoids.

<table>
<thead>
<tr>
<th>Core area</th>
<th>Pre-core area</th>
<th>Periphery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up-</td>
<td>Pan-</td>
<td>Poorly-</td>
</tr>
<tr>
<td>Down-</td>
<td>Omni-</td>
<td>Highly-</td>
</tr>
<tr>
<td>Over-</td>
<td>Uni-</td>
<td>Closely-</td>
</tr>
<tr>
<td>Under-</td>
<td>Poli-</td>
<td></td>
</tr>
<tr>
<td>Ill-</td>
<td>Mono-</td>
<td></td>
</tr>
<tr>
<td>Well-</td>
<td>Photo-</td>
<td></td>
</tr>
<tr>
<td>Half-</td>
<td>Psycho-</td>
<td></td>
</tr>
<tr>
<td>Self-</td>
<td>Super-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intra-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iso-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retro-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auto-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dia-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neo-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fore-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nano-</td>
<td></td>
</tr>
</tbody>
</table>

Source: compiled by the authors.

4 Discussion

Following the position of Diachkova [12] we understand a word-building field as a hierarchical structure with a core, pre-core area and periphery of a diverse range of various
semi-affixational elements sharing such characteristics as desemanticized lexical meaning and ability to participate in a word-building process. However, in the development of her conclusions, we distinguish two micro-fields of prefixoids and suffixoids within a field of affixoids. We do it grounded in the distributional patterns of semi-suffixation and semi-prefixation. Following Marchand, Ralli and Stepanova [1, 2, 6, 11] we accept the intermediary position of affixoids, but we also argue that the large set of morphemes of so-called “portmanteau words” (mostly of Latin or Greek origin) build a very heterogeneous and diverse group of word elements “broken off” from a lexeme. We also refer them to the group of affixoids as they also take the intermediate position between root morphemes and affixes, are productive and able to form neologisms and nonce-words. However, we consider them as the pre-core area of corresponding micro-fields. We also add to her category of a pre-core-area such affixoids as -worthy; -conscious; -rage on the basis of their combinability, relatively large degree of semantic bleaching and wide incidence in the word-building. In the development of the previous research [1-15] we suggest that one of the criteria to determine the hierarchy of micro-fields of prefixoids and suffixoids is the extent of their ability to unfold in a motivating phrase. We also determine the hierarchy of the micro-fields of prefixoids and suffixoids as it is shown in tables 1 and 2.

5 Conclusion

To conclude, we consider the semi-affixation as a separate way of word formation and affixoids as the cohesive lexical entity which can be classified as the derivational field with its own hierarchy including two micro-fields of suffixoids and prefixoids. The hierarchy offered is built from the perspective of the following criteria: the occurrence in the process of word building new lexical units according to word-formation models, including the ability to form occasionalisms or nonce-words; the degree of semantic bleaching comparing to the corresponding onymous free lexeme; the degree of keeping the ability to unfold into a motivating word-combination. Within the derivational field of affixoids, it is possible to distinguish between two micro-fields: the micro-field of prefixoids and the micro-field of suffixoids which have respective core, pre-core and periphery areas. The practical value of this work is that it suggests the criteria of determining both the position of word-building morphemes with intermediary status in the word-building process and their status in corresponding derivational micro-fields.

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Diagnosis of communicative abilities of 6-7 years old children

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Abstract. Diagnosis of communicative abilities in the senior preschool age is a prerequisite for further successful development of communicative giftedness of children. However, insufficient attention is paid to this aspect in preschool educational organizations. At the same time, a properly chosen system of diagnostics of communicative abilities will increase the learning and developmental potential of the educational process in a preschool institution. The purpose of the study is to determine, structure and experimentally test the diagnosis tools to identify the level of development of communicative abilities of senior preschool children. As a result of the study the components of the development of communicative abilities are defined. The criteria corresponding to development components are allocated and the development level indicators (initial, normative, advanced) are described. Diagnostic toolkit for older preschool children is selected based on the characteristic. Forty children aged 6-7 years attending the municipal state preschool educational institution “Kindergarten No. 72” in the city of Kirov (Kirov oblast, Russian Federation) took part in the diagnostic testing. As the main result of the research a diagnostic toolkit for identifying the level of development of communicative abilities of senior preschool children is described and tested. The research can be useful to teachers and psychologists of pre-school educational institutions, teachers and students of secondary vocational and higher educational institutions.

Keywords: communication, communicative abilities, senior preschool age, diagnostics, toolkit, techniques

1 Introduction

Development of communicative abilities of children is an important social, psychological and pedagogical task. Preschool childhood is a sensitive period for development of communicative sphere of a child, because it is at preschool age when relationships between people originate and develop. According to L. S. Vygotsky, the social world and adults are a necessary condition of human development of the child [1].

An important aspect of establishing full-fledged interpersonal relations, as well as establishing contacts with the people around, is the communicative abilities of a person. A.

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A. Leontiev includes communicative skills (information-communicative, regulatory-communicative and affective-communicative) and personal skills in the structure of communicative abilities [2].

E. O. Smirnova defines communicative skills of preschool children through automated skills and reveals their structure [3]. R. K. Tereshchuk’s research defines such parameters of communicative activity of preschool children as social sensitivity, communicative initiative, and emotional attitude [4]. S. V. Konchenko relies on the works of A. A. Leontiev and notes that communicative skills of preschool children are meaningful communicative actions and are manifested in the proper construction of their behavior and management of it in the process of communication [5]. L. A. Rodionova, S. V. Pasukhina define indicators of social and communicative development of senior preschool children as a basis of the diagnostic program [6]. A. E. Keldimuratova, L. L. Lashkova characterize the features of communicative activity of senior preschool children and note that they should be considered in the process of purposeful work to develop communication throughout preschool childhood [7]. O. M. Arefieva identifies emotional, cognitive, behavioral components of communicative universal learning skills of younger students [8]. K. A. Nosova believes that communicative skills influence the development of confidence, calmness, purposefulness of children [9].

Thus, on the basis of the analysis of researches it is possible to draw a conclusion that communicative abilities are the general abilities which define success of communicative activity of the person. Developed communicative abilities most often include abilities and skills.

### 2 Materials and methods

The purpose of the study was to determine, structure and experimentally test diagnostic tools to identify the level of development of communicative abilities of older preschool children.

The authors put forward the assumption that the development of communicative abilities of 6-7 years old children will have a greater effect when carrying out qualitative diagnostics of its actual level based on a set of components, criteria and indicators.

Research objective:
1. Determine the components of communicative abilities, on the basis of which to highlight the evaluation criteria, indicators of development of communicative abilities and give a characteristic of levels in children 6-7 years old.
2. To select methods of diagnostics of level of development of communicative abilities of children of senior preschool age, allowing to estimate each component separately and all components as a whole.
3. To test the selected diagnostic tools.
4. To analyze the obtained results.

Research methods:
- theoretical methods: analysis, synthesis, comparison and generalization of psychological and pedagogical research on the problem of diagnosis and development of communicative abilities of preschool children;
- empirical methods: observation; diagnosis of children.

The study was conducted on the basis of the municipal preschool educational institution “Kindergarten No. 72” in Kirov to test the effectiveness of diagnostic toolkit for determining the current level of development of communicative abilities. The study covered 40 children aged 6-7 years in total.

Reliability and validity of the research results are provided by the validity of the research methodology, experimental approbation of the main provisions, the use of various methods of quantitative and qualitative assessment and interpretation of the results.
3 Results

Analysis of psychological and pedagogical literature has shown that, despite the high interest of scientists to the problem of development of communicative abilities of preschool children, the problem of their diagnostics and its influence on the development of abilities of children has not been studied enough.

Based on the research of O. M. Arefieva [8], T. P. Bashlacheva, S. V. Savinova, L. N. Vakhrusheva [10] and others, three components of communicative abilities (cognitive, emotional, behavioral) were identified, in accordance with which the criteria and indicators of development of communicative abilities of senior preschool children were identified (Table 1).

<table>
<thead>
<tr>
<th>Component</th>
<th>Criteria</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>Existence of age-appropriate communicative knowledge</td>
<td>knowledge of ways and peculiarities of transmitting information to another person; knowledge of norms and rules of behavior in communication situations; knowledge of speech etiquette</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Ability to initiate, maintain and complete a conversation</td>
<td>ability to use different ways to start a conversation with a peer or adult; ability to hold a line of conversation and respond appropriately to remarks; ability to complete a dialogue at the end of it</td>
</tr>
<tr>
<td></td>
<td>Ability to attract the interlocutor’s attention</td>
<td>ability to speak politely to everyone; ability to express a desire, a request to communicate</td>
</tr>
<tr>
<td></td>
<td>Ability to use verbal and nonverbal means of communication</td>
<td>ability to select verbal means of communication depending on the situation; ability to use non-verbal means of communication depending on the situation</td>
</tr>
<tr>
<td></td>
<td>Ability to show respect and responsiveness to the interlocutor</td>
<td>ability to demonstrate a welcoming attitude towards the other party; ability to show interest in what the interlocutor says</td>
</tr>
<tr>
<td></td>
<td>Ability to assist the partner in conversation and accept help from others</td>
<td>awareness of the characteristics of the interlocutor; assisting in the conversation if necessary; acceptance of help from others</td>
</tr>
<tr>
<td></td>
<td>Ability to resolve conflicts using appropriate methods</td>
<td>ability to assert one’s position, prove, argue skill of concession; ability to communicate conflict-free</td>
</tr>
<tr>
<td>Emotional</td>
<td>Motivation for communicative activities</td>
<td>presence of motives for the use of socially approved forms of communicative activity; desire to make contact with other people</td>
</tr>
<tr>
<td></td>
<td>Ability to notice and respond appropriately to the emotional state of the partner</td>
<td>control of the emotional state of the interlocutor; emotional response to the feelings and experiences of the interlocutor; expression of sympathy, empathy</td>
</tr>
<tr>
<td></td>
<td>Personal characteristics of the child as a subject of communicative activity</td>
<td>consideration of the peculiarities of self-perception and perception of others in different communication situations; demonstration of character traits and behavior</td>
</tr>
</tbody>
</table>

Source: Compiled by the authors
Based on the structure, criteria and indicators of communicative abilities of 6-7 years old children, the levels of their development (initial, normative and advanced) were characterized. To identify children’s communicative abilities, an experiment was conducted. It was represented by two series:

Series 1 – filling out the observation card of A. M. Shchetinina, M. A. Nikiforova for manifestations of communicative abilities of preschool children [11]. This technique is complex and covers all the studied components.

Series 2 – diagnosis of children:
- technique by A. V. Chulkova to study the formation of dialogic speech of preschool children [12];
- the “Playroom” projective technique by O. M. Diachenko [13];
- the “Uninhabited Island” projective technique by O. V. Dybina [14].

To approve the selected diagnostic materials, an experimental study with 40 children of 6-7 years old was conducted and the current level of development of communicative abilities was determined (Table 2).

### Table 2. The level of development of communicative abilities of children in the experimental study.

<table>
<thead>
<tr>
<th>Component of communication abilities</th>
<th>Levels of communicative abilities development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial</td>
</tr>
<tr>
<td>Cognitive</td>
<td>10</td>
</tr>
<tr>
<td>Behavioral</td>
<td>9</td>
</tr>
<tr>
<td>Emotional</td>
<td>9</td>
</tr>
</tbody>
</table>

*Source: Compiled by the authors*

The conducted experiment allowed identifying the level of development of communicative abilities of 6-7 years old children and indicated the need for work to improve them.

This allows concluding that the diagnosis of all components of the development of communicative abilities should be comprehensive in nature, which requires the use of different diagnostic techniques. Only in this case the results can be obtained, most adequately reflecting the level of development of communicative abilities of senior preschool children.

### 4 Discussion

The main task of senior preschool children diagnosis is to obtain the fullest possible information about the children abilities level of development. Recommendations to teachers and parents for their further improvement can be developed based on that information.

V. Osipov, V. A. Shershneva characterize the structure and content of metacompetence, one component of which, from the authors point of view, is communicative competence. As diagnostics researchers offer to use a complex of the diagnostic techniques satisfying criteria of the least labor intensity, simplicity in use and possibility of qualitative reproducibility by any user [15]. A. A. Zarechnaya, E. V. Kuftyak, and M. S. Odintsova suggest using a number of diagnostic techniques to diagnose communicative skills of children with developmental problems [16, 17]. A. N. Gryaznova, V. V. Vasina assess the formation of communication skills of preschool children with autism spectrum disorders using VB-MAPP [18]. However, this technique is labor-intensive and cannot be used by teachers of preschool educational organizations.

Various methods of diagnosing the communicative abilities of preschool children are known, but most of them are aimed at studying individual aspects of communicative culture or assessing the communicative skills of children with developmental problems, which was
the reason for choosing the direction of current study. The methods selected and tested by the authors fully cover the entire range of criteria for assessing communicative abilities. The conducted work proved the necessity of using the elaborated diagnostic techniques for each component of communicative abilities for their further development in older preschool children.

5 Conclusion

Thus, the process of communication is important in building relationships between people. The way a person communicates with others determines his or her role in the socio-cultural development of the entire society. Effective communication is largely due to the developed communicative abilities.

Components of communicative abilities of 6-7 years old children (cognitive, behavioral, emotional) are revealed in the article. Corresponding criteria and indicators are established. In the course of the study diagnostic tools to identify the level of development of communicative abilities of senior preschool children were selected and experimentally tested. Those allow organizing the work of the teacher in the best way possible.

The research data allow making a conclusion about the effectiveness of the work done and serve as a basis for the organization of further work to improve the communicative abilities of 6-7 years old children, taking the level of their development into account.

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The core of the concept NATIVE LANGUAGE in the representations of students – native speakers of the Udmurt language

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Abstract. Among linguistic studies in the field of studying units and processes of formation, storage and use of information, works on linguocognitology in the context of problems of universal and ethnically marked concepts are of particular interest. This study is devoted to the conceptual sphere of the Udmurt language. Its purpose is to describe the core part of the concept NATIVE LANGUAGE based on the verbalized representations of students – native speakers of the Udmurt language about their native language. The method of associative experiment was used in the work, which made it possible to determine the content of the concept NATIVE LANGUAGE, describe its structure, and identify the core and periphery. The scientific novelty of the study lies in the fact that for the first time the core component of the concept NATIVE LANGUAGE in the representations of native speakers of the Udmurt language has become a subject of study. During the study, an attempt was made to reconstruct the core part of the nominative field of the concept NATIVE LANGUAGE, where the most important components are “National culture”, “Native Udmurtia”, “Family”. In addition, the core of the concept under study demonstrates a pronounced hierarchical structure, which suggests its frame organization. The results of the study enrich the modern knowledge of cognitive linguistics and suggest further study of the concepts of the Udmurt language, taking into account the age, social and gender peculiarities of its speakers.

Keywords: concept, concept NATIVE LANGUAGE, Udmurt language, frame, core of the concept, associative experiment.

1 Introduction

An important task of linguistics at the current stage is the further development and description of basic concepts. A concept is a linguistic phenomenon that arises as a result of a combination of logical models classifying and systematizing the cluster-organized knowledge of a certain ethnic group, it shows the integrity of language models in synonymous, antonymic, binary and other respects [1].

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The study of the concepts of the Udmurt language and culture is of particular interest. Note that the scientific research of cognitive linguists concerned emotive concepts in the Udmurt language, for example, in the monograph by T.R. Dushenkova [2], in the work by G.N. Shushakova dedicated to concepts LIFE AND DEATH in Udmurt folklore studies [3], E.N. Eltsova studied the concept TOSKA-KURADZON in a comparative aspect [4], the concept UDMURT/UDMURTSKIY was also analyzed by researchers E.R. Ibragimova and L.V. Vafina, based on the stereotypical components of the recipients’ linguistic consciousness [5]. Certainly, concepts that are significant for the Udmurt language play a special role, since they primarily reflect the thinking and worldview of a native speaker of this language.

Obviously, the concept NATIVE LANGUAGE is a fundamental and universal concept in linguistics. Language appears to be one of the ethnic markers that allows an individual to identify himself with one or another ethnic community, while the native language is very important in a person’s life, since the native language is a bearer of the culture, mentality, traditions and history of each people [6]. All this determines the relevance of studying the concept NATIVE LANGUAGE as an integral element of the ethnic self-consciousness of a speaking individual and community.

According to T.R. Trask, some languages may be under significant pressure from the more prestigious or used language spoken in a given territory, so a process of language shift in favor of another language occurs [7]. A similar situation is observed in relation to the Udmurt language, despite the fact that it is a language of the titular nation of Udmurtia. Its functioning in various communicative spheres, in comparison with the Russian language, is heterogeneous [8]. From this perspective, the awareness and presentation of understanding of the native language by representatives of the Udmurt ethnic group is of interest.

It should be emphasized that to date a scientific description and analysis of the concept NATIVE LANGUAGE in the view of native speakers of the Udmurt language have not been made. In this regard, it appears relevant to analyze the specifics of verbalized representations of students – native speakers of the Udmurt language about their native language and, based on the data obtained, describe the concept NATIVE LANGUAGE. The verbal implementation of the concept is diverse and very specific, since everyone realizes and perceives their native language within the framework of his own ideas and individual world view.

The concept under study can be described using the field structure, i.e. in terms of core and periphery. The authors agree with the opinion of most researchers that the core includes the associations and images that are the most significant and relevant for native speakers, invariant features of the concept, while more abstract features make up the near and far periphery of the concept, which will be characterized by variability and single reactions to the stimulus word [9]. The periphery can be a transition zone to other concepts [10].

According to O.A. Zharina, concepts are a culturally conditioned phenomenon, they depend on the society in which they are used [11]; concepts are also largely determined by living conditions, national-cultural characteristics, and subjective preferences [10].

It should be noted that a concept has movable boundaries and certain functions, objectives, i.e. its value may vary depending on the conditions of use [11, 12]. The volume and content of any concept depend on individual cognitive experience and are largely determined by living conditions, national-cultural characteristics, education level, age and professional characteristics, religious beliefs and subjective preferences.

2 Materials and methods
The research purpose is to describe the core part of the concept NATIVE LANGUAGE based on the verbalized representations of students – native speakers of the Udmurt language about their native language.

Achieving the research purpose involves solving the following objectives: 1) to conduct an associative experiment to identify reactions to the stimulus “native language”; 2) to analyze the results obtained and reconstruct the nominative field of the concept NATIVE LANGUAGE; 3) to describe the core of this concept.

In this study, there is a focus on the identification and description of the core part of the concept NATIVE LANGUAGE, in which a sufficient number of precedent phenomena were found. The researchers did not set the task to consider the near and far periphery, since these layers of the concept are very mobile and are directly dependent on the category of respondents. Belonging to the core or periphery is determined primarily by the brightness of the feature in the mind of a bearer of the corresponding concept. The description is carried out as an enumeration of features from the core to the periphery as the brightness of the feature decreases.

To determine the structure of the core of the concept NATIVE LANGUAGE, an associative experiment aimed at identifying various verbalizations of the proposed stimulus word was carried out. The informants were first- and second-year students of the Federal State Budgetary Educational Institution of Higher Education “Izhevsk State Agricultural Academy”. Respondents were asked to write, if possible, in the form of a noun, 10 associations to the stimulus “native language” (hereinafter referred to as “NL”). In this case, they were also required to indicate their native language. The number of respondents who indicated the Udmurt language as their native language was 42 people out of 150. An analysis of their responses formed the basis of the experimental part of the study. When determining the architectonics of the core part of the concept, it is necessary to take into account the importance of any mental information components that are revealed both directly during the experiment and as a result of reflection.

The method of associative experiment was chosen to undertake the study, since it becomes possible to obtain an associative field that represents “a fragment of the world image of a particular ethnic group, reflected in the mind of the “average” bearer of a particular culture, his motives, assessments and, consequently, his cultural stereotypes” [13].

It appears that the basic stereotyped core of knowledge, or the cognitive base of an ethnic group, really exists, but stands out from the individual conceptual spheres as some part of them, equally kept by all members of the linguocultural community.

3 Results and discussion

Respondents who indicated Udmurt as their native language gave 330 responses verbalizing the concept NATIVE LANGUAGE. The study identified 135 options formulated as nouns. The analysis of their frequency showed that the options were used by the respondents 1, 2, 3, 4, 5, 7, 8, 10, 12, 15 and 25 times. To determine the content of the core, firstly the authors proceeded from the frequency of response options and, thus, it primarily included the following reactions:

- Perepechi (25),
- Native village, native land (15),
- Family (12),
- Udmurtia (10),
- Pelmeni (8),
- Tabani (8),
- House (8),
- Folk songs and dances (8),
- Homeland (7),
- Italmas (7).

These reactions within the core of the concept NATIVE LANGUAGE easily form higher-order mental units, namely “National culture”, “Native Udmurtia” and “Family”. Taking into account statistically less significant reactions (and the authors referred to the core the reactions that were mentioned in the respondents’ works twice or more times in order to select multiple responses), these formations allow determining their structure as an unfolding multi-tiered frame, in which each subsequent tier includes components of the previous one [14]. In this case, the terms “frame” – “subframe” are used (See Table 1):

<table>
<thead>
<tr>
<th>Subframe “Kitchen”</th>
<th>Subframe “Traditions”</th>
<th>Subframe “Folklore”</th>
<th>Subframe “Everyday life”</th>
<th>Subframe “Statehood”</th>
<th>Subframe “Home grounds”</th>
<th>Subframe “Relatives”</th>
<th>Subframe “House”</th>
</tr>
</thead>
<tbody>
<tr>
<td>perepechi (25)</td>
<td>folk songs and dances (8)</td>
<td>traditions (4)</td>
<td>sauna (2)</td>
<td>Udmurtia (10)</td>
<td>native village, native land (15)</td>
<td>family (12)</td>
<td>house (8)</td>
</tr>
<tr>
<td>pelmeni (8)</td>
<td>national costume, clothing (5)</td>
<td>Tol Babai (2)</td>
<td>coat of arms (3)</td>
<td>italmas (7)</td>
<td>grandmother (4)</td>
<td>cat, she-cat (2)</td>
<td></td>
</tr>
<tr>
<td>tabani (8)</td>
<td>culture (3)</td>
<td>fairy tales (2)</td>
<td>nation, nationality (2)</td>
<td>Homeland (7)</td>
<td>parents (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>shanga (3)</td>
<td>holidays (2)</td>
<td>Baigurez (2)</td>
<td>accent (3)</td>
<td>ancestors (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>food (3)</td>
<td>folklore (2)</td>
<td>Izhevsk (2)</td>
<td>grandfather (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kvass (2)</td>
<td></td>
<td></td>
<td>love (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Respondents’ reactions combined into frames and subframes.

Thus, the frame “National culture” includes subframes “Kitchen”, “Traditions”, “Folklore” and “Everyday life”, while it can be noted that the elements found in the subframe “Kitchen” predominate. Characterizing this set of reactions, the following comment can be given. The list includes the names of traditional Udmurt cuisine (“perepechi”, “tabani”, “pelmeni”), which to this day are an integral attribute of the way of life in rural areas of Udmurtia. The subframes “Traditions” and “Folklore” included the following reactions: folk songs and dances, national costume and clothing, Tol Babai – the Udmurt Santa Claus, fairy tales, Baigurez – the name of a mountain, a natural monument on the territory of Udmurtia, since many legends and beliefs are associated with it, now it is a place of tourist pilgrimage [15], etc. The quantitative analysis also shows that the most important components of the content of the studied concept NATIVE LANGUAGE are associated with the frame “Family”, which consists of several generations (ancestors, grandmother, grandfather, parents), respondents respect the traditions of their ancestors and feel like a part of nature, this is what gives them an understanding of the Homeland [15].

Thus, it can be observed that the core of the concept NATIVE LANGUAGE is formed by a developed frame network consisting of three main frames.

The following should be noted with regard to the content of subframes. At the content level of subframes, the ability of the components included in them to move from one subframe to another, and sometimes to another frame, is observed. For example, the
reaction “italmas” can advantageously fill the subframe “Folklore”, since it is associated with Udmurt legends, be included in the subframe “Home grounds” according to the place of growth and in the subframe “Statehood”, since it is a symbol of Udmurtia for all residents of this region. In addition, despite the fact that they are part of the high-frequency frames of the concept under consideration, the study revealed a significant number of individual reactions that should be interpreted as the content of the periphery. It follows that, firstly, the frames of the core of the concept NATIVE LANGUAGE can potentially consist of even more subframes and, secondly, the idea of amorphous boundaries of the core and periphery is confirmed.

4 Conclusion

Associates proposed by native speakers of the Udmurt language made it possible to reconstruct the nominative field of the concept NATIVE LANGUAGE. Despite the fact that the associative field of each respondent is individual both in terms of the composition of names and the strength of the links between them, the data obtained reflected the universal aspects of the respondents’ native culture. Thus, the core part of the concept was identified, which included the following significant frames “National culture”, “Native Udmurtia” and “Family”.

Systematizing and describing the core part, the authors came to the conclusion that the structure of the core unfolds in the form of frames and subframes that have a certain degree of mobility and can move to another frame. It can be stated that the core of the concept is filled with pronounced ethno-cultural components.

The prospect of further research is to conduct a similar experiment in other age groups, which will clarify the stability of the core of the concept under study and the possible variability of its subframes.

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The use of Internet resources in the classroom as a means of forming students' information competence.

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Abstract. The purpose of the study: Development and presentation of methodological foundations for the study and implementation of Internet resources in the classroom to improve the information competence of students. Objectives of the study: To consider technological approaches to the use of Internet resources in the classroom to develop ICT competence of students, to study methodological aspects of the use of Internet resources in the classroom to develop information competence of students, to develop and test a set of experimental chemistry lessons using educational Internet resources. Research hypothesis: based on the analysis of the gathered information, we assume that the systematic introduction and use of Internet resources in the pedagogical process lead to the formation and development of the ICT competence of students. We used such research methods as analysis of pedagogical and methodological literature, observation, and tests. 12 chemistry lessons were developed and conducted using Internet resources in eighth grade. In the 10th “A” class, chemistry lessons were conducted using Internet resources, in the 10th “B” class, lessons were conducted according to the classical educational program used in this school. The purpose of the lessons was the development of ICT competence skills among students, therefore, to analyze the results of the lessons, we conducted tests to determine whether students use particular skills to solve educational tasks. The experiment showed the development of the skills of the experimental group and the absence of significant changes in the indicators of the control group, which demonstrate the effectiveness of our methodology and its positive impact on the development of student’s information competences

Keywords: ICT, technological approach, competence, students, lesson.

1 Introduction

The issues of using Internet resources in the classroom as a means of forming students' information competence are considered in the works of V.V. Anisimov, Ya.A. Vagramenko, Z.P. Dyenesh, V.P. Kashitsin, T.V. Kudryavtsev, G.L. Lukankin, E.I. Mashbitsa, V.M. Monakhov, I.V. Robert, A.L. Semenov, M.S. Tsvetkova, I.S. Broun, J.S. Bruner, S. Papert, and others.

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These works consider various aspects of the informatization of the education system, but there is no complete picture of the impact of the use of information technology in the classroom, on the development of information competence of students. [5, 9].

The innovation process consists of the formation and development of the content and organization of the new. In general, the innovation process is understood as a complex activity for the creation, development, use, and dissemination of innovations. Possession of information competence in combination with the qualified use of modern means of information and communication technologies is the essence of ICT competence. [1, 7].

The defining features of the concept of "competence" are the following characteristics - constant variability associated with changes in the success of an adult in a constantly changing society. The competence approach assumes a clear orientation towards the future, which is manifested in the possibility of building one's education taking into account success in personal and professional activities. Competence is manifested in the ability to make a choice based on an adequate assessment of their capabilities in a particular situation and is associated with motivation for continuing education. [2].

The introduction of ICT into the educational process requires the development of a completely new methodology for teaching technology, which is largely related to research and design technologies. At the same time, the teacher should be able to create an informative and educational environment in which the child could express and teach himself at the same time. [8].

Competence can be formed only in practice. Consequently, more attention on the part of the teacher should be paid to the practical orientation of educational materials. In order to solve the problems of preparing students for a successful life in the information society, the school, among other things, must form the skills that makeup ICT competence in its students. Its content consists of such cognitive skills as the definition (identification), access (search), management, integration, evaluation, creation, communication (transmission) [3, 4].

Theoretical knowledge and practical skills on the use of ICT in preparing and conducting lessons include knowledge of software and computer tools, methods, and didactic techniques of using them in their subject [14].

Such knowledge and skills allow the teacher to increase interest in the subject; to make the lesson modern; accessible for students to learn the material; the opportunity to emotionally and figuratively present the material; to establish a relationship of mutual understanding, mutual assistance between the child and the teacher; to increase the teacher's professional and pedagogical competence [12, 13].

2 Materials and methods

The purpose of the study: development and presentation of methodological foundations for the study and implementation of Internet resources in the classroom to improve the information competence of students.

Tasks:
1. To consider technological approaches to the use of Internet resources in the classroom for the formation of ICT competence of students;
2. To study the methodological aspects of the use of Internet resources in the classroom for the formation of students' information competence;
3. Develop and test a set of experimental chemistry lessons using educational Internet resources.

Hypothesis: based on the analysis of the collected information, we assume that the systematic introduction and use of Internet resources in the pedagogical process lead to the formation and development of ICT competence of students.
The following research methods were determined: observation, analysis of pedagogical and methodological literature, methods of accumulating facts from pedagogical practice, testing of students. We have developed and conducted twelve chemistry lessons using Internet resources in eighth grade.

Below is presented 1 typical outline plan from a set of lessons developed and conducted by us. When preparing and conducting lessons, we took into account the expediency of using information tools, since the use of computer technology in the classroom, as is known, involves careful preparation and thinking through each element of the lesson, both from the point of view of didactics and from the side of a personality-oriented approach to each student [15].

Lesson 1.
Theory of the chemical structure of organic compounds. The electronic nature of the chemical bond.

The lesson can be built in the form of research, independent work of students in an online classroom (15 people). Students are invited to familiarize themselves with the material on the following list of tasks on the websites: http://www.table.hotmail.ru, http://www.webelements.narod.ru, http://catalog.alledu.ru, and complete the task yourself.
1. What does organic chemistry study?
2. List the features of the structure and properties of organic substances.
3. What substances are called isomers? Give examples.
4. Formulate the main provisions of the theory of the chemical structure of organic compounds by A.M. Butlerov.
5. Give examples of acyclic (marginal and unsaturated), alicyclic, aromatic compounds.
6. What is called a functional group?
7. What types of nomenclature of organic compounds are currently used?
8. What types of formulas are used in organic chemistry?
9. Define the following concepts: chemical structure, hydrogenation, dehydration, hydrochlorination, dehydrochlorination, sigma bond, pi bond, isomerization, ionic reactions, radical reactions (primary, secondary, tertiary, quaternary) carbon atom.

Research work at the lesson involves the following stages;
- Wording of the purpose of the study;
- Selection of a specific system of objects and their observation;
- Qualitative and quantitative recording of results in a notebook;
- Automatic processing and display of results on the computer screen;
- Search and selection of necessary information;
- Presentation of the result;
- Interpretation of the result, comparison.

The teacher establishes constructive cooperation during the students' research work. He advises how best to formulate a new concept, discusses the result with the student. At the end of the lesson, students can be grouped and asked to formulate general answers to the questions posed at the beginning of the research work. Studying the topic "Theory of the chemical structure of organic compounds" with the help of Internet resources will allow schoolchildren to perceive its content not just as lecture material, but independently formulate many "discoveries" concerning the patterns of changes in the properties of chemical elements.

3 Results

The pedagogical experiment was conducted at the A. Suleymanov Secondary School No. 1, Alkhazurovo, Chechen Republic. It was conducted among students of class 10 “A” (experimental group) and class 10 “B” (control group).
The pedagogical experiment consisted of 3 parts: Developing lessons using Internet resources by students, conducting lessons, analyzing and interpreting the results of lessons.

In the 10th "A" class, we conducted chemistry lessons using Internet resources, in the 10th "B" class, lessons were conducted according to the usual educational program.

The general purpose of the lessons was the formation of ICT competence skills among schoolchildren, therefore, to analyze the results of the lessons, we determined whether students use particular skill to solve educational cognitive tasks. These skills include the skills listed in Table 1.

<table>
<thead>
<tr>
<th>№</th>
<th>Skill</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identification skills</td>
<td>Ability to accurately interpret a question</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ability to detail a question</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finding information specified explicitly or implicitly in the text</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identification of terms, concepts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Justification of the request made</td>
</tr>
<tr>
<td>2</td>
<td>Information retrieval skills</td>
<td>Selection of search terms based on the level of detail</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Matching the search result to the requested terms (evaluation method)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formation of a search strategy</td>
</tr>
<tr>
<td>3</td>
<td>Management skills</td>
<td>Creating a classification scheme for structuring information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Using the proposed classification schemes for structuring information</td>
</tr>
<tr>
<td>4</td>
<td>Integration skills</td>
<td>Ability to compare and contrast information from multiple sources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The ability to exclude inappropriate and irrelevant information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The ability to concisely and logically correctly present generalized information</td>
</tr>
<tr>
<td>5</td>
<td>Assessment skills</td>
<td>Development of criteria for the selection of information in accordance with the need</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selection of resources according to the developed or specified criteria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ability to stop the search</td>
</tr>
<tr>
<td>6</td>
<td>Creation skills</td>
<td>The ability to develop recommendations for solving a specific problem based on the information received, including contradictory information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The ability to make a conclusion about the focus of the available information on solving a specific problem</td>
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<tr>
<td></td>
<td></td>
<td>Ability to justify your conclusions</td>
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<tr>
<td></td>
<td></td>
<td>The ability to cover the issue in a balanced way in the presence of contradictory information</td>
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<tr>
<td></td>
<td></td>
<td>Structuring the created information in order to increase the credibility of conclusions</td>
</tr>
<tr>
<td>7</td>
<td>Transfer Skills</td>
<td>The ability to adapt information for a specific audience (by choosing the appropriate means, language and visual range)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The ability to correctly quote sources (on the case and in compliance with copyright)</td>
</tr>
</tbody>
</table>
Based on Table 1, we have developed testing to analyze the results of using Internet resources in chemistry lessons. Table 2 shows the results of the input testing of the level of ICT competence conducted in the control and experimental groups.

Table 2 - ICT competence skills of students of grade 10 "A" before the experiment.

<table>
<thead>
<tr>
<th>Students of the 10th &quot;A&quot; class who took part in the experiment</th>
<th>ICT competence skills</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 The arithmetic mean value of personal skills of ICT competence in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td></td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>- 42,85</td>
</tr>
<tr>
<td>Student 2</td>
<td></td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+ 28,57</td>
</tr>
<tr>
<td>Student 3</td>
<td></td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>- 14,28</td>
</tr>
<tr>
<td>Student 4</td>
<td></td>
<td>-</td>
<td>+</td>
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<td>- 14,28</td>
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<tr>
<td>Student 5</td>
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<td>+ 42,85</td>
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<td>Student 6</td>
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<td>+ 28,57</td>
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<tr>
<td>Student 7</td>
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<td>- 28,57</td>
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<td>Student 8</td>
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<td>-</td>
<td>- 28,57</td>
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<tr>
<td>Student 9</td>
<td></td>
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<td>+</td>
<td>+</td>
<td>+</td>
<td>+ 42,85</td>
</tr>
<tr>
<td>Student 10</td>
<td></td>
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<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+ 42,85</td>
</tr>
<tr>
<td>Student 11</td>
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<td>-</td>
<td>+</td>
<td>-</td>
<td>- 28,57</td>
</tr>
<tr>
<td>Student 12</td>
<td></td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>- 14,28</td>
</tr>
<tr>
<td>Student 13</td>
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<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>- 14,28</td>
</tr>
<tr>
<td>Student 14</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Student 15</td>
<td></td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+ 57,14</td>
</tr>
<tr>
<td>Arithmetic mean value of ICT skills competence of class in %</td>
<td></td>
<td>20</td>
<td>40</td>
<td>33,33</td>
<td>13,33</td>
<td>40</td>
<td>13,33</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 3 - ICT competence skills of students of grade 10 "B" before the experiment.

<table>
<thead>
<tr>
<th>Students of the 10th &quot;B&quot; class who took part in the experiment</th>
<th>ICT competence skills</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 The arithmetic mean value of personal skills of ICT competence in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td></td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>- 28,57</td>
</tr>
<tr>
<td>Student 2</td>
<td></td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>- 28,57</td>
</tr>
<tr>
<td>Student 3</td>
<td></td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+ 42,85</td>
</tr>
<tr>
<td>Student 4</td>
<td></td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+ 42,85</td>
</tr>
<tr>
<td>Student 5</td>
<td></td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+ 28,57</td>
</tr>
<tr>
<td>Student 6</td>
<td></td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>- 28,57</td>
</tr>
</tbody>
</table>
The results showed that at best the students possess the following skills: identification, access, creation and transmission of information, worst of all the skills of management, integration and evaluation of information. This suggests that when drawing up lessons, the teacher needs to pay attention to the formation of these skills.

To analyze the effectiveness of the methodology we developed for using Internet resources in organic chemistry lessons, based on the results of the experiment, we conducted a control test in both groups and a comparative analysis of the results obtained.

Table 4 - ICT competence skills of students of grade 10 "A" at the end of the experiment.

<table>
<thead>
<tr>
<th>Student</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Student 2</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Student 3</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Student 4</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Student 5</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
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<td>+</td>
</tr>
<tr>
<td>Student 6</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Student 7</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Student 8</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

The arithmetic mean value of personal skills of ICT competence in %
### Table 5 - ICT competence skills of students of grade 10 "$B" at the end of the experiment.

<table>
<thead>
<tr>
<th>Students of the 10th &quot;$B&quot; class who took part in the experiment</th>
<th>ICT competence skills</th>
<th>The arithmetic mean value of personal skills of ICT competence in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Student 1</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Student 2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Student 3</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Student 4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Student 5</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Student 6</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Student 7</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Student 8</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Student 9</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Student 10</td>
<td>-</td>
<td>+</td>
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<tr>
<td>Student 11</td>
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<tr>
<td>Student 12</td>
<td>+</td>
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<tr>
<td>Student 13</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Student 14</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Student 15</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Arithmetic mean value of ICT skills: 26,66 40 20 20 46,66 20 40
Table 6. Comparative analysis of the results of the input and control experiment in the experimental group in %.

<table>
<thead>
<tr>
<th>№</th>
<th>Percentage of a certain skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10 &quot;A&quot; class before the experiment</td>
</tr>
<tr>
<td>2</td>
<td>10 &quot;A&quot; class at the end of the experiment</td>
</tr>
<tr>
<td>3</td>
<td>Difference</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>№</th>
<th>Percentage of a certain skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>93,33</td>
</tr>
<tr>
<td></td>
<td>P&gt;73,33</td>
</tr>
</tbody>
</table>

Table 7. Comparative analysis of the results of the input and control experiment in the control group in %.

<table>
<thead>
<tr>
<th>№</th>
<th>Percentage of a certain skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10 &quot;B&quot; class before the experiment</td>
</tr>
<tr>
<td>2</td>
<td>10 &quot;B&quot; class at the end of the experiment</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>№</th>
<th>Percentage of a certain skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>26,66</td>
</tr>
<tr>
<td>2</td>
<td>26,66</td>
</tr>
<tr>
<td></td>
<td>P = 0</td>
</tr>
</tbody>
</table>

Tables 6 and 7 show a percentage comparison of the skill level before and after the experiment. This makes it possible to compare the success of the development of a particular skill before and at the end of the study.

The general purpose of the lessons was the formation of ICT competence skills among schoolchildren, therefore, to analyze the results of the lessons, we determined the level of development of a particular skill in the learning process.

Thus, comparing the success of the development of a particular skill according to the results of the experiment (Table 6, Table 7), we came to the following conclusions:

1. Identification skills in the experimental group increased by 73.33%, in the control group remained at the same level and showed no growth.
2. Information retrieval skills in the experimental group increased by 60%, in the control group remained at the same level and showed no growth.
3. Management skills in the experimental group increased by 13.33%, in the control group remained at the same level and showed no growth.
4. Integration skills in the experimental group increased by 80%, in the control group by 6.67%.
5. Assessment skills in the experimental group increased by 46.66%, in the control group remained at the same level and showed no growth.
6. Creation skills in the experimental group increased by 76.67%, in the control group by 13.34%.
7. Transfer skills in the experimental group increased by 13.33%, in the control group remained at the same level and showed no growth.

These indicators demonstrate the effectiveness of using Internet resources in organic chemistry lessons to increase the level of ICT competence of students. Students of the 10th "A" class showed higher results in mastering ICT skills compared to students of the 10th "B" class. This proves the positive impact of the methodology developed by us on increasing ICT competence in the experimental group.

4 Discussion

Strokan V.I., in her research, having analyzed the use of Internet resources in teaching, concluded that it is necessary to classify and structure the possibilities of using the Internet in teaching, since the use of ICT during training affects the professional growth of a teacher, his ability to "keep up with the times", which in turn affects a significant improvement in the quality of education of students and their information competence [10].

She highlighted several common positive aspects in the use of Internet resources in teaching.
- provide stable motivation to study the subject;
- create a comfortable atmosphere in the classroom;
- provide a high degree of personalization of training;
- increase the amount of work performed and increase the amount of knowledge, and skills acquired in the lesson;
- improve the quality of student’s knowledge control;
- rationally plan and organize the learning process, thereby increasing the effectiveness of the lesson;
- to form the communicative competence of students through authentic materials;
- provide students with access to various dictionaries, reference systems, electronic libraries, repositories and other information resources.

Tyutrina T.A., notes that her research shows that the complex use of new technological achievements with the latest computer programs gives, undoubtedly, a positive result. A lesson using computer technology arouses great interest among students, makes them more independent, and properly organized work of students with Internet resources can contribute to the growth of their cognitive and communicative interest, the development of ICT competence [6].

Referring to these and other scientific studies, we conducted a theoretical comparative analysis of the results of our study with the generally accepted assessments of most experts in this field. Our study confirmed the positive impact of the use of Internet resources in the classroom, including, as indicated by the above authors, the growth of ICT competence of students, the growth of cognitive and communicative interest, the personalization of learning and many other indicators of the pedagogical process [11].

5 Conclusion
The analysis of pedagogical and methodological literature, the study of teachers' experience revealed that in education in recent years, the concepts of "innovation", "competence approach", "key competencies", ICT competencies have become the most relevant. It is also revealed that increasing "network" literacy will increase the motivation of learning and improve the educational process, which will improve the skills of independent learning and research, improve social development.

When preparing and conducting lessons, we took into account the expediency of using information tools, since the use of computer technology in the classroom, as is known, involves careful preparation and thinking through each element of the lesson, both from the point of view of didactics and from the side of a personality-oriented approach to each student. In addition, we have developed the necessary teaching materials, didactic and handouts.

Our experiment, using the example of organic chemistry lessons, confirmed the hypothesis that the systematic introduction and use of Internet resources in the pedagogical process leads to the formation and development of ICT competence of students.

Figure 1 - Indicators of comparative analysis of the development of ICT competencies among students in EG and KG

The improvement of the indicators of the experimental group students in the development of identification skills (information retrieval, creation and transmission, management, integration and evaluation of information) and the absence of significant changes in the indicators of the control group (Table 6, Table 7, Diagram 1) demonstrate the effectiveness of our methodology, its positive impact on the development of students' information competencies and the prospects for its further use in educational practice.

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Mass media influence on the Russian language formation

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Abstract. The present paper represents a small part of a more extensive study of the main processes occurring in the language. This research aims to identify the correlation between borrowings and the semantic series in the Russian language, to detect and systematize language transformations caused by new types of discourse that are currently appearing. The study is intended to show their pragmatic focus and role in the formation of the semantic structure of the language. The article examines a layer of new vocabulary that has appeared in the Russian language over the past 30 years. New words usually come into the language from the world of fashion, sport, finance, business, economy, and foreign cuisine. However, the main source of Anglicisms in the Russian language has recently become the world of computer games and new high technologies. Their number is steadily growing; and if previously it did not affect the structure of the language, nowadays one can witness another picture. The novelty and relevance of the paper are due to the fact of finding new signs of changes that are taking place in the Russian language and affect its grammatical system. For this purpose, the author used the following methods: lexical-semantic analysis together with context analysis; component analysis; comparative analysis; survey conducted by random sampling among young people and the older generation.

Keywords: borrowing, anglicism, barbarism, language transformation

1 Introduction

A lot of articles are devoted to the problem of borrowings. This proves the urgency of the topic that causes great concern among linguists. One can mention here such authors as Kostomarov, Kuznetsova, Zurina, Vinogradov, and many others.

Any language, like a living being, is changing and developing during its existence. New words appear to describe new notions, and some words disappear with the development of society. In previous times, the Latin and the Greek languages were the sources for coining new words. As time went by, the Latin and Greek words finished, but the development of the society did not.

How did the process of borrowings occur? The usual way was from scientific papers. A researcher making a report at a conference or writing his or her thesis used foreign words to

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describe some phenomenon or process more exactly or accurately, or just to sound more “scientific”. If the used word denotes the phenomenon correctly and accurately, the word might be repeated by other scientists and mentioned in journals. As soon as the word appears in newspapers or on television, it can be said that it becomes part of the language.

There are a lot of words in the Russian language now that are not recognized as borrowings. Many of them appeared in the language as medical terms; others came from science, foreign cuisine, and fashion. Nowadays, the number of sources has significantly increased.

With the development of computer technologies and the digitalization of society, the English language started its aggressive penetration into other languages. It is interesting to note that Germans struggled with British borrowings, trying to translate everything possible into German, and after a long time they gave in. It is very simply explained as English is a very convenient language since almost all nouns can be converted into verbs and vice versa.

2 Results

The author analyzed a great number of TV shows, radio broadcasters, newspapers, magazines, and social networks. It should be admitted that Pravda has won the first place among newspapers for the purity of the Russian language. It does the newspaper credit for its stability and ability to keep the style unchanged. Second comes Moskovsky Komsomolets with just a few borrowings such as volonter, top, anonisirovat’, reiting, brend, kontent, trend, podkasty, and some others. It is necessary to point out that volonter (volunteer) has almost pushed out the Russian word dobrovolets and now it sounds a bit obsolete.

Unfortunately, the young generation does not read newspapers with good Russian. They prefer to read and watch different blogs or play Internet games, which are now the main source of Anglicisms. From the Internet and social networks, those Anglicisms penetrate TV. Many talk shows, especially Zvezdy sosshis, are just full of foreign words. One may have an impression that the guests have a great desire to show off their knowledge of English. However, it only shows their bad knowledge of Russian. There are also some TV shows like Comedy Club, for example, where speakers do not bother what language they use; they are not ashamed to use low colloquial expressions, to say nothing of Anglicisms. One may have an impression that this is not a TV program, but some illegal gathering in a gateway. Russian politicians and government representatives should not clog their tongue with Anglicisms. They must set a good example of competent speech. For instance, during one of his latest interviews, the mayor of Moscow, speaking about his achievements in building roads, used the English word “hub” instead of a Russian word “uzel”, saying “transport hab” and not “transport uzel”. This word struck the ear.

3 Discussion

Back in 1966, Alexei Leontiev defined borrowings as foreign words presented in Russian grammar form with Russified semantics and in Russified sound form [1]. The first borrowings of foreign words in Russian reflect the interaction of slavs with other tribes and allow us to view the chronology and the nature of these contacts. Russian – English contacts belong to a later period and are of great importance to the convergence of Russian and other European languages. The beginning of Anglo-Russian relations refers to the XVI century. The early borrowing of English words was based on the unconditional need that the first Russian diplomats faced when compiling their reports to the Moscow government.

There appeared such words as earl, lord, alderman chief justice and others [2-4].
Since the beginning of the 21st century, the number of borrowings has significantly increased. It happened due to the unprecedented development of new high technologies. This makes it necessary to identify and systematize language transformations caused by new types of discourse and thoroughly investigate the specifics of the language processes leading to them [5].

Many scientists agree that the changes that have been underway for some time in discourse are just functional and may influence the language system as a whole but do not destroy it. It is just a sign of low culture [5, 6]. The ability of English lexical units to penetrate into Russian is characterized by their high semantic potential [4, 7-12]. Anglicisms, appeared in the modern Russian language, have different degree of assimilation in the language-recipient. Some of lexical units acquire the status of borrowings (complete or partial) others become foreign inclusions [8].

Nowadays, linguists identify several groups of English borrowings:

1. Direct borrowings are the words that appeared in the Russian language with their original meaning and pronunciation [4, 9-11]. For example: topless (topless), resepshn (reception), uik-end (week-end), mani (money), kesh (cash), supermarket (supermarket), chendzh (change), soft skils (soft skills), ki akaunt menedzher (key account manager), etc.

2. Hybrids. These words are formed with the help of Russian suffixes, prefixes, or endings that are added to the foreign root: (save) – zaseivit’ – which means “to save some info on the computer”. Sometimes, the initial meaning of a foreign word can change, for example: busy – buzit’ – meaning “to start a scandal”.

3. Exotisms. These are the words specific to a particular culture. They may characterize some national traditions or customs [13, 14]. They are usually used to describe some foreign reality. Such words do not have any synonyms in Russian. They usually refer to some foreign cuisine, for example: chips, hot dog, and cheeseburger; or to a certain culture: sir, miss, mississ, gentlemen, lord, scout, peer, pub, Scotland Yard, etc.

4. Barbarisms are words that preserve their phonetic and graphic form and are perceived as foreign words. They are strangers against the Russian background, but nevertheless, they are more and more often used, especially on television. These are such words as dress-code, know-how; who is who, message, respect, happy end, abuse, teenager, brainstorm, deadline, bulling, top manager, non-stop, feedback, user, looser, and many others.

5. Jargon words appeared as a result of distorting the form of original English words by adding Russian suffixes or endings. For example, krezanutyi (crazy), laiknut’ (like), postit’ (post), targetingovaya reklama (target advertising), khaipanut’ (hype), baksy (bucks), laitovo (light), kliknut’ (click), batit’ (bite), etc.

Some linguists differentiate borrowings from “inclusions”. Inclusions are understood as lexical units that preserve the original spelling in the original language without any morphological changes retaining their meaning [8, 15]. This can be the first stage of adapting to the Russian language.

Can one justify the number of borrowings existing now in the Russian language? When words are borrowed from English into Russian, there must be a vacuum in the language to denote a new notion or subject. It means that there is no appropriate word in Russian to translate it. These are usually lexical units belonging to the sphere of business, new high technologies, economy, sport, or culture.

The state of the modern Russian language (on the speech level) can be characterized as an English-Russian mix. This is a great concern of Russian linguists and not only.

Here is an example of a true story from the Soviet times. One person, the author’s acquaintance, came to Moscow from the Caucasus to study law at Moscow State University. He was full of energy and eager to learn but his fellow students and groupmataes laughed at him because of his strong accent. It is common knowledge that lawyers should speak good Russian when presenting the case in court. He was determined to learn to speak
Russian well and decided to approach a professor of Russian for advice. The advice was unexpected but it worked well. The professor suggested reading an editorial of the Prawda newspaper aloud before breakfast every day. The result was perfect. The student managed to get rid of his accent and became a prominent lawyer. It means that the editorial language was the benchmark to which one should strive. The language of newspapers, TV, radio, and literature was supposed to form the Russian language norm.

4 Conclusion

The present study makes it possible to conclude that borrowings are necessary if there is no such a word or a notion in the Russian language. This kind of Anglicisms is fully justified since it is common knowledge that English has twice as many words as Russian.

There has appeared a dangerous sign of a new productive suffix -er. Nowadays, it is more actively used than purely Russian suffixes -ist, -shchik, -stv-, -ost’, -ik. For example: startaper, tiktoker, khaker.

Moreover, some speakers use such grammatical structures that resemble the English gerund very much. It may look like “Anglification” of the Russian language and not “Russification” of English borrowings.

As has been mentioned above, all mass media have a great impact on people’s minds and education. One should bear in mind that language reflects the mentality of the nation. If the language changes, the mentality will change accordingly. Therefore, it is necessary to stop the destruction of the Russian language on the legislative level. Maybe it is time to introduce censorship?

References


Methodology for the complex development of coordination in 7-grade schools

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Abstract. The research article substantiates the relevance of acquiring the most extensive motor experience in primary school age, which includes a large number of movements for various parts of the body and having a different spatio-temporal and dynamic structure, the goal is to develop and experimentally test a methodology for the complex development of coordination abilities in children. 7-8 years old and research tasks are being solved: 1) analysis of literary sources, materials of the practice of physical education of primary schoolchildren, the problem is defined and the working hypothesis of the research is formulated; 2) selected outdoor games for the development of coordination abilities, considered the specificity of their use in physical education lessons and conducted a pedagogical experiment; 3) a thorough all-round analysis of the results of the formative experiment using the methods of mathematical statistics was made, through experimental research the effectiveness of the developed technique was proved, which was expressed in significantly higher results and the rate of their growth in the experimental groups.

Keywords: physical culture, development, justification, schoolchildren, experiment, efficiency.

1 Introduction

A wide range of specialists notes that the active mental and physical development of children makes the primary school age sensitive in the development of many coordination abilities [1,2,3,4]. According to a number of authors, during this period the basis of motor experience...
is laid, the school of movements, which in the future will determine the ability to perform complex coordination movements in sports, work and everyday life [5,6,7,8].

Many modern scientists also recognize the importance of the development of coordination abilities in primary school students [9,10,11]. As noted, in primary school age, the basis for the coordination of movements is laid, a large number of motor skills and abilities are formed, the absence or small number of which is difficult to replenish at a later age [12,13]. It can be considered proven that the numerous coordination abilities associated with the control of movements that have different spatio-temporal structure, as well as differ in the muscle groups and body segments involved in their implementation, are often characterized by their specificity, weak interconnection with each other or complete lack of such a connection [14]. The development of coordination abilities in the process of physical education of junior schoolchildren - in one of the most dynamic periods of the development of the child’s body - there are only fragmentary, sometimes contradictory opinions [15]. This allows us to consider the problem of the development of coordinating abilities in children of primary school age as partially developed, requiring further, deeper study. The urgency of solving the problem of acquiring as extensive motor experience as possible in primary school age, including a large number of movements for different parts of the body and having different spatio-temporal and dynamic structure [16], is determined by the fact that the absence of targeted complex developmental influences on coordination abilities in younger school age cannot be replenished at a later age, which can become a significant limiting factor in progress in many sports, in mastering a number of professions that require complex manipulations, as well as in learning many movements associated with controlling household appliances.

Research hypothesis. It was assumed that the use of outdoor games at physical culture lessons that correspond to the age characteristics of boys and girls and include tasks that require the manifestation of coordination abilities in global, regional and local movements, including under conditions of exposure to the vestibular apparatus, will allow more effective development of coordination abilities in children 7-8 years old.

Purpose of the research: development and experimental substantiation of the methodology for the complex development of coordination abilities in children 7-8 years old at the lessons of physical culture.

In accordance with the purpose of the study, the following tasks were set:

1. To develop a methodology for the complex development of the coordination abilities of children 7-8 years old.
2. Experimentally substantiate the effectiveness of the methodology for the complex development of coordination abilities at physical education lessons

2 Materials and Methods

The pedagogical experiment was carried out in the 2020-2021 academic year in order to determine the level of development of coordination abilities and the effectiveness of the developed methodology for the development of coordination abilities in girls and boys 7-8 years old. The pedagogical experiment involved 22 boys (11 in the control and experimental groups) and 24 girls (12 in the control and experimental groups) seven to eight years old. Physical culture lessons were held in control groups according to the traditional program, in experimental ones - using the proposed outdoor games. The lessons were conducted by a physical culture teacher, with whom the introduction of the developed methodology for the development of coordination abilities was previously agreed.
Rice. 1. Methodology for the complex development of coordination abilities in children of 7-8 years old at physical education lessons

When analyzing the experimental material, the methods of mathematical statistics were used. The following statistical indicators were calculated: arithmetic mean, standard deviation. The assessment of the reliability of differences in statistical indicators when comparing individual parameters was determined using the Student’s t-test. The age of 7-8 years in boys and girls is one of the most dynamic periods of development, which suggests that a number of coordination abilities are improved only in the presence of developing influences on the corresponding physiological and mental processes. Based on the data of other researchers, when creating a technique, the purpose of which was to develop coordination abilities, the emphasis was on various options for throwing and catching shells of different shapes and weights, their throws into horizontal and vertical targets from different starting positions and in different states: standing on one leg, standing on an increased support, after running at different speeds, after one or several jumps, after one or several turns, bends or bends, standing up, somersaults or somersaults, etc. In connection with the psychological characteristics of junior schoolchildren, the development of coordination abilities was supposed to be carried out mainly in a playful way. For the development of appropriate coordination abilities, outdoor games were selected containing elements and movements included in the relay. One of the conditions for the effectiveness of the process of development of coordination abilities was the requirement that when signs of fatigue were manifested, play activity or relay race stopped, or the intensity of motor activity decreased.
Much attention in the developed methodology (Fig. 1) was paid to the development of coordination in movements with different rhythms. For this, various running exercises were used (running with a shin overlap, rolling from heel to toe, jumping, running with a high knee, etc.). Running exercises and running at different speeds were performed according to markings, through objects (stuffed balls, etc.), including sideways, back forward, etc. When explaining such exercises to children, expressions and images were used that corresponded to their age: not “jogging,” but “running a deer,” not “running with a high frequency,” but “running a little bunny,” and so on. Such exercises were used in the preparatory part of the lesson. Some of them were used as tasks in relay races in the main part of the lesson. At the same time, attention was paid to both the speed and the correctness of the execution, which was controlled with the help of penalties and incentive points to the team taking part in the relay. The proposed technique was conventionally divided into two blocks. The first of these blocks was used in the first quarter of the school year, and, in accordance with the content of the physical culture program, included: outdoor games and relay races with varieties of running exercises performed at different marks, as well as jumps with turns in different directions and with different amplitudes with subsequent throwing of balls of various sizes and weights into horizontal and vertical targets. The fundamental difference in the content of the second block of the methodology was the use of forward and side rolls as a means of influencing the vestibular apparatus, followed by throwing various balls into horizontal and vertical targets, as well as performing other exercises requiring coordination of movements.

Exercises of both the first and second blocks of the methodology were performed by repeated, game and competitive methods. The repetitive method implied repeated performance of exercises requiring complex coordination of movements. the motor task changed. Exercises of both the first and second blocks of the methodology were performed by repeated, game and competitive methods. The repetitive method implied repeated performance of exercises requiring complex coordination of movements. The main condition for this was the “fresh” state of the students. With the appearance of signs of physical and mental fatigue, a decrease in interest in the exercise, the motor task changed.

Competitive and play methods of performing the proposed exercises allowed, on the one hand, to create an increased emotional background, as a factor that impedes the implementation of complex coordination exercises. This made it possible to observe the main condition for the use of exercises for the development of coordination abilities - they should present coordination difficulty for the practitioners.

On the other hand, the fulfillment of exercises by playing and competitive methods is most consistent with the psychological characteristics of children of primary school age.

We emphasize once again that the main task of introducing the developed methodology was a complex, multifaceted developmental impact on the coordination abilities of primary schoolchildren, in contrast to the unidirectional development of coordination in running with a change in the direction of movement.

3 Results

To confirm the effectiveness of the proposed methodology for the purposeful development of coordination abilities with the help of outdoor games and relay races with the inclusion of the elements described above, a pedagogical experiment was carried out. At the beginning, control and experimental groups of boys and girls of 7-8 years old were selected, which did not have significant differences in the studied parameters (Table 1).
Table 1. The level of coordination skills in primary school children at the beginning of the pedagogical experiment

<table>
<thead>
<tr>
<th>Tests</th>
<th>Gender</th>
<th>Results (x±δ)</th>
<th>Significance of differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>experiment.</td>
<td>control</td>
</tr>
<tr>
<td>Shuttle run (s)</td>
<td>M</td>
<td>10,2±0,95</td>
<td>10,1±1,05</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>10,9±1,16</td>
<td>11,0±1,15</td>
</tr>
<tr>
<td>Throwing on accuracy (points)</td>
<td>M</td>
<td>11,6±2,64</td>
<td>11,7±2,13</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>7,3±2,06</td>
<td>7,5±2,12</td>
</tr>
<tr>
<td>Wall ball (points)</td>
<td>M</td>
<td>27,9±3,13</td>
<td>28,2±2,94</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>19,9±2,89</td>
<td>20,3±2,32</td>
</tr>
<tr>
<td>Sprint in given rhythm (s)</td>
<td>M</td>
<td>2,32±0,31</td>
<td>2,29±0,26</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>2,74±0,33</td>
<td>2,79±0,24</td>
</tr>
</tbody>
</table>

The proposed methodology for the complex development of coordination abilities was used in the experimental group during the first quarter.

Table 2. The level of coordination skills in primary school children at the end of the pedagogical experiment

<table>
<thead>
<tr>
<th>Tests</th>
<th>Gender</th>
<th>Results (x±δ)</th>
<th>Significance of differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>experiment.</td>
<td>control</td>
</tr>
<tr>
<td>Shuttle run (s)</td>
<td>M</td>
<td>9,2±0,84</td>
<td>9,7±1,08</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>10,0±1,02</td>
<td>10,6±1,08</td>
</tr>
<tr>
<td>Throwing on accuracy (points)</td>
<td>M</td>
<td>13,0±2,32</td>
<td>11,9±2,08</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>8,8±1,86</td>
<td>7,6±2,19</td>
</tr>
<tr>
<td>Wall ball (points)</td>
<td>M</td>
<td>32,5±2,74</td>
<td>28,8±3,09</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>23,5±2,52</td>
<td>20,8±2,45</td>
</tr>
<tr>
<td>Sprint in given rhythm (s)</td>
<td>M</td>
<td>1,97±0,21</td>
<td>2,26±0,26</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>2,30±0,20</td>
<td>2,73±0,26</td>
</tr>
</tbody>
</table>

The lessons in the control group went unchanged. At the end of the formative experiment, repeated testing was carried out, which revealed significant differences in all the tests used between the children of the control and experimental groups (Table 2).

4 Discussion

It should be especially noted that boys and girls in the experimental groups significantly surpassed their peers in the control groups not only in those tests in which zero age dynamics was observed in the first pedagogical experiment (the developed methodology was primarily aimed at the development of the corresponding coordination abilities), but also in the “shuttle run” test, which is provided by the physical education program as a test of motor fitness.
Rice. 2. Indicators of annual growth in the level of various coordination abilities in boys aged 7-8 years

Obviously, the purposeful development of other coordination abilities had a generalized effect on the coordination abilities corresponding to the shuttle run test. In this test, as in the rest of the tests used, the growth rates of the results turned out to be higher in the experimental group (Fig. 2 and 3).

However, as can be seen in Figures 2 and 3, the growth rates of the results in the tests of coordination abilities, which were not previously used in physical culture lessons, in the experimental groups turned out to be significantly higher, and in shuttle running - only slightly higher in the experimental group. It should also be noted that the rates of increase in the indicators of coordination abilities in the experimental groups, with the exception of shuttle running, are slightly higher in girls.

Rice. 3. Indicators of annual growth in the level of various coordination abilities among girls aged 7-8 years

Obviously, this is a consequence of their somewhat lower initial level due to their less rich motor experience. Thus, in the experimental groups of boys and girls, at the end of the experiment, significantly higher results were recorded in all tests of coordination abilities.

5 Conclusion

The growth rates of the indicators of coordination abilities were higher in the experimental groups in all the tests used. The aforesaid confirms the effectiveness of the developed methodology for the development of coordinating abilities and confirms the complex nature of the impact on the body of schoolchildren when it is used at physical education lessons for boys and girls of primary school age.

Conclusions.

1. It was revealed that primary school age is sensitive and basic in the development of coordination abilities.
2. At the age of 7-8 years, the level of a wide range of different coordination abilities in boys is significantly higher than among girls of the same age. Obviously, this is a consequence of the less extensive motor experience in girls of primary school age.

3. The developed methodology, based on the use of outdoor games and relay races with elements requiring the manifestation of a wide range of coordination abilities, has been substantiated and made it possible to give the process of their development a purposeful and comprehensive nature.

Further research in the direction of improving coordination abilities will be promising if we consider the anthropometric and morphological features, with the development of individual vectors for the development of children.

References

Developing efficiency as a translator’s professional competency

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Abstract. The statistics of employment in one’s degree field and the quality of professional activities of graduates with degrees in translation have been declining in recent years. The solution to this problem is to develop future translators’ professional competencies. The objective of this study is to define efficiency in translators’ vocational training and ways of its development in bachelors of linguistics. The methods of observation, survey, and content analysis allowed defining this quality as part of the personal construct of “a translator’s business chronotope”. The structure of this concept includes the value of qualification, job satisfaction, participation in the development of the industry, vocational training and professional advancement prospects, labor productivity, translation quality, material wealth, and social prestige. This professional competency can be developed by addressing the field of students’ personal meanings and introducing work on them into translator training at different levels and during different study periods. As a material for exercises and training sessions, the authors propose to use educational videos, for example, TED Talks conferences, the possibilities provided by the Moodle electronic educational environment, and also use techniques and methods for interpreting translated texts with reference to temporal and other deep personal meanings.

Keywords: vocational training, translator, translator’s efficiency, ways to develop efficiency

1 Introduction

Novelty and relevance. In the context of the current political and economic situation, a fundamental revision of the system for training translators is required. Many researchers [1-3] note the huge requirements for this profession. A translator should not only be a professional having skill of rendering other people’s thoughts from one language to another but also should have a good understanding of the field in which the translation is carried out. Some researchers note that often not a professional translator is more successful, but, on the contrary, a professional in a certain field, who knows its terminology and knows a foreign language at a certain level. Practice shows that such a problem exists. The present study was carried out among graduates of the specialty 45.03.02 Linguistics of the Federal State Budgetary Educational Institution of Higher Education Yugra State University, who have been studying translation since 2012. An analysis of the reports for this period shows that

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although graduates with a bachelor’s degree in linguistics did not apply to the employment center, only a few of them worked in their degree field. Most graduates have to receive additional vocational education to work in specialties that are often related to linguistics but do not directly correspond to it (pedagogical, technical, or medical). This is explained by graduates’ lack of confidence in their ability to provide high-quality translation services in a certain field, lack of professional experience due to the insufficient amount of academic hours allocated in the bachelor curriculum for work experience internship, the absence or a small number of stakeholders, basic enterprises, and potential employers.

It is necessary to note the following contradiction: on the one hand, modern translation didactics recognize the need to create an integrative system for teaching translators [3-5], the need for new, integrated approaches to training; on the other hand, the changes have mainly affected only the formal side of education. The quality of training has not improved; on the contrary, assessments carried out by the regulatory authorities (Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing, etc.) show a decrease in the level of knowledge of bachelors of linguistics, insufficient development of their professional skills and abilities, which do not meet the requirements of the labor market.

The objective of the study is to combine modern and applicable attempts to solve relevant problems of translator training with the requirements of the modern labor market by describing such a measurable professional competency as “a translator’s efficiency”, which can be developed in the educational process to improve the quality of training bachelors of linguistics.

The tasks of this work are:
1) to define the concept of “efficient translator”;  
2) to introduce methods for developing the efficiency of a translator into the educational process of the university;  
3) to determine the effectiveness of using these methods when training bachelors of linguistics.

The solution to the problem of the lack of correspondence between the quality of translator training and the requirements of the market, among other things, is seen in work with personal constructs. Foreign researchers [6, 7] note the need for this support (motivation, fields of interest, professional orientation) through resorting to external factors – for example, the impact on the semantic sphere by addressing external stakeholders of the university (which meets the requirements of the political and economic state of the modern world).

Russian scientists in the field of professional activity [8-10] have established a connection between training and personality development in the process of mastering professional activity. Among its components, some researchers mention motivation, the goal, the presence of a program, the availability of information concerning the field of activity, and decision-making.

As a way to bring the conflict between the requirements and the actual level of training of translators to a single moment in which the result can be measured, it is proposed to consider efficiency as a translator’s professional competency. This paper will consider a theoretical model of the professional competency “translator efficiency” and propose some methods of its development, which are supposed to be included among the elements of the translator training system in the future. Building a complete system, in the authors’ opinion, is the subject of a more extensive study.

2 Materials and methods

In earlier studies [11], the authors of this paper have already noted the need to develop such a personal construct as “a translator’s business chronotope” in the process of professional education. “Multitasking” was taken as the basis for building its structure. The working
definition of this concept says that it is “a professional personal construct of a translator, ensuring the predominance of a positive attitude and openness, proactivity, global reflection and visualization, continuous self-improvement, synergy in interaction, prioritization and timeliness, quality and efficiency of translation activities”. The place of this construct in the structure of professional translation activities is approximately shown in Fig. 1. The present study is carried out as part of developing a concept of the existence of the presented personal construct.

As can be seen from the working definition, it is necessary to introduce a measurable indicator for the success of professional translation activities, which depends on the functioning of the personal and professional construct of “a translator’s business chronotope”. As such an indicator, it is proposed to measure the efficiency of translation activities.

The data for a working definition of the term “efficient translator” were obtained by the following methods: observation, survey/sociological interview, and content analysis of the received texts.

Observation: During the entire study period of bachelors of linguistics, the authors of this paper recorded data on the professional activities of in-demand and well-known translators. They attended events held by key translation communities (“Contact” conferences, the Translation Forum Russia of different years, events of the Association of Translation Teachers, training and courses “Linguacontact”). Observations on the dynamics of online professional communities of translators (the social network Facebook) were collected. Common and different traits in the approaches both to translation strategies and tactics and to the assessment of the translation quality were singled out.

Survey: Initially, the authors put forward a hypothesis that successful professional translators can identify key elements that determine the efficiency of their profession. To obtain the texts, 50 well-known translators were interviewed. They were asked to answer the question: “Who is an effective translator?” in 2–3 long sentences. The responses received are quite diverse texts-interpretations. For example, here are the two most informative answers.

"An efficient translator is, first of all, a practicing translator who not only constantly improves his or her skills but also has such qualities as flexibility, emotional stability,
responsibility. Besides, he or she is a member of professional communities, knows professional standards, and is a very versatile person him/herself. The efficiency of a translator is measured not only by the number of events in which he or she participated or the number of translated texts (of course, translated with high quality) but also by knowing how to apply the latest technical and IT software in his or her professional activities”.

“An efficient translator – I can only explain this by the example of translating audiovisual (AV) content. An efficient AV translator pays special attention to the stage of previewing the work as a whole to understand its structure, plot, and the place of the verbal fragments he or she translates among other narrative means. An AV work involves up to 15 sign systems – gestures, facial expressions, costumes, etc. An efficient AV translator models the processes of cognizing an AV work by the target audience and always remembers that he or she is only a part of a collective author, and video is not the context for understanding his/her translation, but all the constituent parts are the prerequisites for the final understanding of the plot at the end. An efficient AV translator translates not WORDS or EXPRESSIONS, he or she translates scenes, which are not verbal units, but plot units. If the translator does not understand all this, he or she can effectively carry out other types of translation activities, but not AV translation. Besides, an efficient AV translator competently and accurately models the process of “double reconstruction” of the content, which takes place due to the discreteness of the work, the presence of cuts in it, based on his/her personal experience and educational background, as well as the sociocultural and linguistic model of the target viewing audience”.

Content analysis: In the obtained responses, the main key elements were identified – units of professional thinking [12], based on which a structure diagram of the concept of “efficient translator” was built.

![Fig. 2. Structure of the concept “efficient translator”. Source: Compiled by the authors based on [10].](image)

The task of university education is to find such ways of pedagogical interaction between a teacher and future translators (using the available temporal, spatial, and resource assets) that would contribute to the development of the efficiency elements shown in Fig. 2. In earlier studies [11], the authors of this paper have already noted that to change personal constructs, it is required to deal with the personal semantic sphere. Personal meaning [9] is a specific basic unit of personality, which, however, is not a one-dimensional phenomenon, but some multidimensional reality, manifested in all the diversity of the individual’s perception and
activity. The mechanisms of generating meanings by the personality are the following: 1) Closing of life relations (meeting of the subject with an object or phenomenon, the result of which is the spontaneous acquisition of a substantial life meaning by this object); 2) Induction of meaning (assigning meaning to activities that have to be performed under some external coercions); 3) Identification with a certain social group or community in the process of sociogenesis; 4) Insight – a sudden perception of meaning, caused by a certain structure from the outside – an experience, text, work of art; 5) Collision with other semantic worlds.

To develop a system of pedagogical interaction, one should take into account that a professional in the subjective context of education independently creates and forms a system of professional concepts, logical schemes of situations and types of visualizations of expected results, thus creating his or her own professional space, time, and, in general, a model of professional reality and activities in it [12].

Based on the above, one can propose the following activities aimed at developing translation efficiency when training bachelors of linguistics:

1. Including the interpretation of texts with reference to the semantic sphere in the native language and the target language among exercises and in pre-translation analysis.

2. Obligatory work with educational video materials, addressing the semantic sphere, on corresponding relevant issues, actualizing all components of a translator’s efficiency.

3. Imitating real situations, in which the maximum number of components of a translator’s efficiency is involved [13]. This should include the fullest use of the electronic educational environment – online training in interpreting, limited time for submitting an assignment, prohibition on submitting an assignment after a certain time limit, etc.

4. Including the development indicators of a translator’s efficiency components among the estimation criteria.

5. Organizing some kind of supervision of translation teachers’ work in groups.

6. Obligatory reflection and self-reflection of students after training with an imitation of a real professional situation.

3 Results

In the current stage, the implementation of the above-mentioned activities is under development. They are used occasionally and unsystematically. However, there are some observations obtained when using the possibilities of the electronic educational environment, in particular, limited time for completing and submitting interpreting assignments.

During classes in the disciplines “Practical Course of the First Foreign Language” and “Workshop on the Culture of Speech Communication in the First Foreign Language” in one of two subgroups of the third and fourth years of study, respectively, a certain time limit was established for the assignment on the interpretation and completing/recording of interpretation, after which it was prohibited to send the completed assignment. Such work types were offered during the 2nd semester of the 2020–2021 academic year and the 1st semester of the 2021–2022 academic year. The students were notified about this. In the second subgroup of the two subgroups of this course, there was no restriction on submitting the assignment. The following criteria were used to assess the quality of interpreting [14]:

- general impression of speech, the interpreter’s speech behavior, well-organized communication; equivalence and adequacy of semantic transmission – the percentage of conveying basic and secondary information, precision data, etc.; equivalence and adequacy of language transmission – the presence of stylistic, lexical, grammatical, and phonetic errors.

The students were also notified in advance about how the results will be assessed. The time given for answers was adequate to the oral fragment, with a margin for recording and sending. Answers were evaluated on a ten-point scale after the task was closed for submission. The
results, showing a trend towards improvement in a translator’s efficiency, are shown in Table 2.

Table 2. Comparison of average grades for interpreting in groups with and without time limits in Moodle.

<table>
<thead>
<tr>
<th>Course</th>
<th>Subgroup</th>
<th>Academic performance semester 1 2020–2021 academic year</th>
<th>Academic performance semester 2 2021–2022 academic year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>March 2021</td>
<td>April 2021</td>
</tr>
<tr>
<td>3</td>
<td>1 (with a time limit)</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>2 (without a time limit)</td>
<td>3.8</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>1 (with a time limit)</td>
<td>4.4</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>2 (without a time limit)</td>
<td>4.3</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Source: compiled by the authors

4 Discussion

However, the obtained data show that the purposeful development of a translator’s efficiency can face certain difficulties.

1. This work involves rather subtle mental mechanisms, personal qualities that can be called intimate, and the possibility of their formation and development seems to be a subjective phenomenon. Thus, reflection and self-reflection in this field can be difficult and even impossible, which makes it difficult to influence this quality purposefully.

2. The basis of value orientations and some other components of a translator’s efficiency is innate features of the central nervous system. Besides, many personal inclinations have already been formed by student age. Outside influence on such established personality characteristics is limited.

3. The current insufficient development of a practical system for developing a translator’s efficiency reflects such a quality of consciousness and thinking as their non-disjunctive nature. Personal constructs are always the result of the influence of many factors, and it is not possible to take into account and measure all of them.

4. The concept of “efficiency” itself in relation to personal constructs is quite controversial. Despite the relevance of applying this concept in the theory and practice of modern higher education (using the “performance-based contract” criteria in relation to teachers, attestation and accreditation reports of universities, etc.), the concept is often rejected by translators themselves. Acting translators, in particular, gave the following answers during the survey: “I would not use the term “efficient” for translation at all. It is too difficult for me. The requirements for a quality oral or written translation are clear. It is just a job description and a code of ethics. I cannot see any point in adding the concept of efficiency. It does not add anything”; “This word is trendy. I have associations with a “performance-based contract” and “effective manager”, where the latter has negative connotations. ‘I will do a translation of a good quality, quickly, cheaply – choose two out of three”’.

5 Conclusion
Thus, to develop such a professional competency of a translator as “efficiency”, it is required to use the following guidelines:

1) A clear idea, perhaps a scheme, of what competence and competencies the future graduate should have when completing the bachelor’s degree linguistics course; creating tactics and a general training strategy.

2) Selecting and organizing work with learning materials in such a way as to address the value-semantic sphere of the future translator, training his/her thinking to master the structuring and restructuring of professional reality. Organizing job training and pre-graduation practice in line with the development of this translator’s competency.

3) A mandatory reflection component at all training levels, feedback both from teachers of translation and practical disciplines and from future colleagues. Obligatory self-reflection as a way of self-control, which the translator will use throughout his/her professional life.

Further studies of developing a translator’s efficiency are planned in the field of developing a training system for an interpreter, which will be implemented and tested on undergraduate students pursuing a bachelor’s degree in linguistics at Yugra State University.

References

Narrative utterance in the function of justifying an indirect request

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Abstract. The description / explanation by the speaker of the nonverbal action / inaction is perceived by the interlocutor as a simulation of the subsequent initiation of an indirect request, becomes an incentive to respond to the speaker’s preliminary speech activity, whose intentions include the subsequent implementation of the requestive act. Such a remark generates a positive reaction of the interlocutor due to the fact that its proposition actualizes an indication of a third person interested in fulfilling the request due to the fact that he does not have any objects or necessary information. The article conducts an analysis of microcontexts presented in spontaneous dialogical communication reflecting its national and cultural specifics. General methods of scientific cognition as well as the method of interpretation is used by the authors. The results of the study imply that the causative connector because can introduce a narrative statement that expresses the pragmatic function of justifying an indirect requestive act.

Keywords: dialogic communication, context, indirect requestive act, narrative statement, causal connector.

1 Introduction

The pragmatic nature of language and the multidimensional process of dialogic communication represent a dialectical unity: the description of the one phenomenon implies the consideration of the other one [1-3]. In one or another pragmatic form, dialogic communication is impossible without relying on such a pragmatic category as “volitiveness”, the analysis of which makes it possible to identify the functioning of language in real processes of interpersonal interaction, taking into account the communicative context. Among the studies of the pragmatic direction, the works devoted to the consideration of the correlation of the speaker’s intention and contextual means of influence affecting the
success of dialogic communication, the effective implementation of the practical goals of the interlocutors are becoming increasingly relevant [4-7].

The linguistic analysis of this ratio turns out to be productive when considering the speech act structure of volitional utterances with high discursive representativeness, which are speech acts of request. The key role of these speech acts in the effective implementation of the practical goals of the interlocutors determines the wide variety of their structure [8-11]. The study of indirect acts of request within the framework of conversational and pragmatic directions in linguistics allows us to consider language as a construct of joint creativity of interlocutors in socially organized verbal activity. The key point is the functional-discursive grammar “in the natural environment”, i.e. in the contextually revealed verbal interaction of the interlocutors [12-14].

These aspects are analyzed in action, actualization within the framework of spontaneous dialogue [15]. As a result, a different view and understanding of grammar is revealed in comparison with the traditional one, in its relationship with social interaction. The study of indirect acts of request actualizes the fact that grammar is not only the source and product of the interlocutors’ interaction, it is the cognitive and pragmatic essence of this interaction.

All this makes it particularly important for linguistic science to study indirect means and ways of expressing the speaker’s requestive intention, including depending on the position of the speech acts being realized in the general course of the development of dialogical communication, as well as the relevance of this study.

2 Materials and methods

The research material was the texts of modern fiction in English, reflecting the national and cultural specifics of spontaneous dialogical communication. The total volume of micro contexts studied amounted to over 5000 examples.

The objectives of the study determined the use of a comprehensive research methodology, which, along with the main interpretative method, also includes general methods of scientific cognition: observation, comparison, induction, deduction, statistical calculation, the principle of blocking for the analysis of units of the lexical level of the language.

3 Results

A narrative statement justifying an indirect request may contain information about the needs of a third party who is not participating in the dialogue. By entering this information, the addressee provides an indirect requestive act with a justification, the pragmatic purpose of which is to convince the listener to realize the current situation and respond positively to it. Using a narrative statement-justification directly in the postposition to an indirect request, the speaker forms his dialogical remark as a syncretism of these two components before the interlocutor reacts to the indirect requestive act. A narrative statement-the justification of an indirect requestive act can be initiated by the speaker as a result of the dialogical interaction of the interlocutors. In this case, the addressee actualizes this justification by means of the causative connector because in the postposition, when the previously initiated indirect request does not achieve the necessary perlocative effect, i.e. there is no positive interlocutor’s reaction.
4 Discussion

In the following example, the immediate context of interpersonal dialogic interaction is presented. The narrative statements potentially preceding an indirect act of request actually become an incentive for the implementation of the speech act of the proposal, which complicates the subsequent initiation of an indirect request. This is a phone conversation between two characters Anna and Henry, who are members of the same basketball team.

The context in which narrative statements that precede an indirect act of request are implemented can be formulated as follows: next Saturday, a basketball team game is scheduled in another city, in which the characters play. At a certain point in the conversation (this text segment is not given), the characters discuss two issues: when to go to the competition (on Friday or Saturday); how to get to the competition venue (ask friends to drive or take their own car). The problem that comes up during the dialogue is that if they go on Friday, they will have to live in the camp with other team members. This means that it will be necessary to sleep in a tent – an idea that the characters do not like due to the weather factor. Therefore, Friday is excluded. In the subsequent dialogue, Anna suggests that Henry go together (line 1):

1. *Or then we'll drive together.*
2. *Actually I would rather...*
3. *I also thought I’d rather have it if you can. So you can relax a little bit on Friday.*
4. *But I’d rather not take my car, it leaks oil.*
5. *Rather not? Oh, I see... Well we could take my car.*
6. *That’s very good!* [16].

In line 1, Anna suggests that Henry go together to the city where the competition will be held. Henry, in turn, supports Anna’s suggestion (line 2). In line 3, Anna informs about the benefits of her offer. After the characters agree to go to the competition on Saturday, a problem arises: how to get to the city, whose car to take for these purposes. At this point in the dialogue, Henry expresses his desire not to take his car (line 4). In response, she offers to go in her car (line 5).

A component of this dialogical replica Rather not? indicates that the character is experiencing certain difficulties in agreeing with the interlocutor’s preference. Note that in this case, Henry leaves Anna no choice but to go to the competition in his car. Therefore, instead of a request, Anna initiates a proposal.

With their dialogical remarks, the interlocutors express an understanding of what the meaning is in the previous speech course. Initiating an offer to go to the competition in her car, Anna interprets Henry’s remarks (lines 2, 4) as directly preceding the indirect act of request and thus does not bring the dialogue to the initiation of this speech action by putting forward a proposal. Moreover, expressing the inability to go to the competition in his car due to a certain circumstance, Henry finds himself in a more preferable position than if he initiated an indirect request. Anna’s dialogical remark containing an offer to go to the competition in her car should be interpreted taking into account the context of the speech interaction in which it is initiated. The context of communication, in which Henry explicates the reason for not wanting to go to the competition in his car, becomes a pragmatic condition for the appropriateness of only the speech act of the proposal, and not the request. It is Anna’s dialogical remark expressing the sentence that testifies to her understanding of Henry’s narrative statements as directly preceding an indirect requestive act on his part. Based on the analyzed example, we can see that the basis for such an understanding of Anna is not only the syntactic and semantic features of Henry’s narrative statements, but also their relevance in the general course of the conversation.
The following excerpt from fiction illustrates an example of how a narrative sentence (message) serves as a means of the near context of an indirect requestive act, directly anticipating this speech act in dialogical communication. This is a conversation between two sisters, Evans and Laura. In line 4, Evans reports why she hasn’t bought a cell phone yet. Evans’ message, implemented in the form of a narrative statement, is initiated in the context of a conversation that is dedicated to Laura’s new phone and a description of all the advantages of this phone (this segment of the text is not given). In the context that follows, Evans explains why she hasn’t bought a phone yet.

1. Saved for Jim?
2. Congratulation on the cell phone.
3. I bought it two days ago.
4. Sure I would have had to sign a contract and that would have been too expensive for me...
5. The cell phone for you?
6. Yes.
7. You’re gonna get that one some time. It runs now on my namy and on my bank account.
8. I think so.
9. Because it wouldn’t have gone otherwise?
10. Yes.
11. But when you get a job you also need a telephone on the way or something like that.
12. Well I’ll take it then.
13. That’s nice of you [17].

After Evans explains why she can’t afford a cell phone, Laura offers her her phone when she finds a job. This offer is initiated as a reaction to Evans’ message (line 4). Eventually, Evans accepts Laura’s offer (line 12). As in the previous example, the addressee’s narrative statement is interpreted by the interlocutor as directly preceding an indirect act of request. Again, we have the opportunity to note how this statement, due to its relevance in the general course of the dialogue, is regarded by the addressee as a signal that in his subsequent speech actions the interlocutor implements an indirect request, and, ahead of the interlocutor, the addressee implements the illocution of the proposal.

Our observations on the near context of the implementation of indirect acts of request indicate that in most cases the speaker implements the indirect illocution in the format of several speech moves:

- directly request;
- substantiation of its relevance in the conditions of this communication;
- the subsequent course of the dialogue.

A statement expressing the justification of the relevance of an indirect request in the conditions of this dialogical communication can be updated immediately before the initiation of the act of request, thus preventing a negative reaction to it. In the material we have collected, however, most of these statements containing the causative connector because justify an indirect request in a postposition with respect to the latter.

After analyzing 100 contexts of dialogical use of indirect request, we found that in 61.9% of cases the speaker justifies his illocution by means of a narrative statement. Of these:

- in 28% of cases, justification is a component of an indirect-requestive dialogical replica;
- in 29% of cases, the justification is updated after the interlocutor has responded to the request;
- in 3% of cases, the justification is updated after the speaker renounces his requestive intention.
Let’s analyze these cases in more detail, while paying special attention to such characteristics of narrative statements justifying an indirect request as:

- position in an indirect remark of request;
- grammatical characteristics;
- pragmatic content.

The speaker provides the interlocutor with certain background information (presupposition) about the person who is also interested in fulfilling the request, which, in turn, enhances the indirect requestive effect on the interlocutor, helps to prevent a negative reaction to the request. The key motive for the indirect request is the fact that Taylor’s colleague is very interested in seeing photos of him with long hair. In other words, the initiation of an indirect request, according to the speaker, is predetermined not by himself, but by another person, so he personally cannot control the situation.

Thus, a narrative statement—the justification of an indirect request contributes to the establishment of mutual understanding between the interlocutors, gives a conflict-free nature to dialogical communication. By entering additional information about a third party interested in fulfilling an indirect request, the addressee provides his requestive with an impeccable justification, the pragmatic purpose of which is to convince the listener to realize the current situation and respond positively to it. Using a narrative statement-justification directly in the postposition to an indirect request, the speaker forms his dialogical remark as a syncretism of these two components before the interlocutor reacts to the indirect act of request.

5 Conclusion

We analyzed why the justification of the indirect requestive act is involved by the speaker in the same dialogical replica immediately after the actualization of this act. The examples we have given illustrate why a narrative statement-justification, marked with a causal connector because, forms with an indirect request a single, syntactically and pragmatically complete dialogical replica. Narrative statements-justifications can be implemented in a dialogic context, in which a response to an indirect act of request at the pragmatic level expresses the uncertainty, doubt of the interlocutor, in this regard, in the subsequent course of the dialogue, he may respond negatively to an indirect request.

A narrative statement, the justification of an indirect act of request, can be initiated by the speaker as a result of the dialogical interaction of the interlocutors. The addressee actualizes this justification when a previously initiated indirect request does not achieve the necessary perlocative effect, i.e. a positive reaction from the listener. A narrative statement that performs the pragmatic function of justifying an indirect act of request can in this case also be introduced by the causative connector because.

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Definition of happiness in the digital space of modern society

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Abstract. The paper deals with the phenomenon of happiness and some of its determinants in the context of the total digitalization of society. In philosophy, happiness is defined as some higher good, which, on the one hand, is a complete and self-sufficient state of human life, and on the other hand, the ultimate purpose of all human activity, which is subjective in nature. Currently, there is a huge number of Internet resources that sometimes can replace real life with virtual reality. Therefore, a completely logical question arises: what is required for a person to become happy in the digital space that surrounds him or her everywhere? This study aims to analyze the philosophical and socio-cultural content of the phenomenon of “happiness” in the context of the predominance of digital technologies in modern society. The study uses the phenomenological method, the method of ascent from the abstract to the specific, as well as an interdisciplinary approach to studying various aspects of the definition of happiness. To sum up the study, it should be noted that the increase in the level of material prosperity and the availability of many services and resources due to digitalization is not a factor that can make a person happy since no material benefits can replace live communication with loved ones, as well as the opportunity to develop and grow professionally.

Keywords: good, virtues, Internet, modern society, happiness, factors, digitalization, digital technologies

1 Introduction

Happiness is a complex and very mysterious state every person aspires to experience throughout his or her life. In the explanatory dictionary of the Russian language, the famous Russian linguist Ushakov gives the following definition: “Happiness is a state of contentment, well-being, joy from the fullness of life, from satisfaction with life” [1]. Fundamental sociocultural transformations determine the relevance of addressing the problem of human happiness in the system of global communications. Throughout the history of humankind, the problem of happiness has been among the most relevant.

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problems, since being happy is the natural desire of every person, regardless of the epoch, society, and linguistic picture of the world. This paper aims to figure out what a modern person needs to become happy.

In the process of research, the following tasks were set:

1) To reveal the philosophical and socio-cultural prerequisites for the definition of happiness.

2) To analyze the factors of human happiness in the context of the digital space of modern society.

The considered problem is currently underdeveloped since the impact of digital technologies on the happiness of a modern person is a relatively new problem field. One can mention works by Gurevich, Lotman, Tatarkevich, and other scientists, which had a significant impact on the development of theoretical concepts of the phenomenon of “happiness”.

Modern studies devoted to the topic of happiness in one interpretation or another include the works by Baimukhanova [2], Bogdanova [3], Koroleva [4], and Smoleva [5]. These researchers analyze the phenomenon of “happiness” from different scientific perspectives.

For example, Baimukhanova in her work analyzes the psychological specifics of the concept of “happiness”.

The research by Bogdanova is carried out in the linguoculturological field. This paper reveals the content of the linguocultural idea of happiness and considers the idea of happiness in various types of discourse.

Koroleva in her work reveals the socio-philosophical prerequisites for the sociological understanding of happiness; she also determines the factors of happiness and the specifics of its conceptualization in various areas of empirical research.

The paper by Smoleva presents the results of a sociological study of the population’s subjective well-being, which is an indicator of happiness.

The analysis of the above works allows drawing the following conclusions: scientists identify four common concepts that define the phenomenon of “happiness”: 1) luck, luckiness; 2) state of joy; 3) possession of material and nonmaterial benefits; 4) feeling of satisfaction with life.

Besides, one can suggest three main theories that identify happiness. The first theory states that moral virtues are the goal of achieving happiness. Thus, it can be pleasure, success, and the absence of emotional struggle. The second theory relates the phenomenon of happiness to a consequence of moral virtue. In other words, happiness is the result of a moral ideal. The third theory states that through these virtues a person can achieve satisfaction. Besides, it distinguishes between human happiness and higher happiness.

Thus, one can say that the concept of “happiness” implies a feeling of satisfaction with the life of a certain person develops. It is the highest good, which is closely associated with moral virtues.

2 Materials and methods

The methodological basis of this study includes the philosophical and culturological concepts of the definition of human happiness. The basic method is phenomenological analysis, which is especially relevant in describing the world of the senses. Besides, the study uses the method of ascent from the abstract to the specific. An interdisciplinary approach to studying various aspects of the definition of happiness required searching for publications in cultural studies, philosophy, linguistics, and other sciences that address the issues of happiness, and the possibility of its achievement by humankind in the modern digital space.
3 Results

The results of the conducted research can be used to implement personal improvement programs from the perspective of a positive transformation of a person’s worldview in the context of the global digitalization of modern society.

Digitalization is a natural stage in the development of society, which contributes to a change in human consciousness and view of life. Many people around the world spend a huge amount of time on mobile phones and social networks, browsing through the “feed”, watching the lives of other people on the Internet, or they create their own Internet content and Internet image, wanting to receive their own dose of dopamine and happiness at a subconscious level [6]. “Likes” and popularity in the information field act as “virtue”; for them, a person performs not always thought-over actions that are not compatible with morality or adequacy. In the modern world of digital space, “happiness” does not have the meaning of the highest or spiritual value. This often leads a person to depression, which is a widespread phenomenon in the modern world, especially in countries with a developed Internet information sphere.

According to the ancient Chinese philosopher Confucius, a happy person is one who makes the best of what he has. Ancient philosophers believed that to be happy, it was enough for a person to be content with the most necessary things in life since obtaining excessive material wealth brings only stress, fatigue, and disappointment, which, in the end, not only negatively affects a person’s health but also significantly shortens his/her life. So why are modern people not satisfied with the minimum, but spend their lives on fuss and acquiring unnecessary things, instead of living in harmony with themselves and the whole world? [7] What makes people foredoom themselves to suffering in pursuit of a position in society or luxury, although this makes them unhappy?

The answer to this question may be hidden in a person’s consciousness and feelings. The German philosopher Nietzsche argued that only a person’s thoughts, not external circumstances, made him/her unhappy or happy. By managing his/her thoughts, a person manages his/her happiness. A person lives his/her life through a complex of sensations through which he/she analyzes and evaluates his/her existence. Throughout his/her life, no matter what a person strives for, he or she strives for happiness, which expects to achieve through pleasant sensations (for example, the possession of material benefits, fame, etc.). However, the achievement of prosperity and fame does not always make a person happy; in most cases, the opposite is true.

“Do not seek for happiness: it is always within yourself,” Pythagoras claimed. Indeed, what matters is not what a person has, but what feelings he or she experiences, whether he or she has become happy by achieving a cherished goal or possessing the object of dreams. That is, a person experiences happiness through his or her own inner sensations.

4 Discussion

In the modern world of global digitalization, the definition of “happiness” is absolutely different from “happiness” as the highest philosophical value. Now it is something transient and easily accessible to almost everyone, regardless of a person’s origin, status, education, and other socioeconomic factors. Pursuing happiness in the context of the development of digital technologies, people almost completely forget about the real world, real problems, and values, competing with the rest of the world in popularity and promoting their pretended importance [8].

The Indian spiritual leader Osho believed that we should “do what makes us happy” [9], and Emile Zola argued: “the only happiness in life is the constant striving forward” [10]. Combining these two statements, one can conclude that to achieve happiness, each person...
needs a favorite occupation that will move him/her forward. New skills and knowledge will help a person to become happy in the digital space of modern society, will allow him/her to integrate into the world of global digitalization, discover new opportunities and achieve more.

5 Conclusion

The modern age of information technology brings global changes in the social system and affects all spheres of human activity. The information flow of mass media and aggressive advertisements impose ideal images of success, to which a modern person must strive [11]. This ultimately results in negative consequences for a person, since he/she is forced to enter into a competitive struggle, to make every effort to achieve material benefits and recognition from society, often to the detriment of his/her moral priorities [12].

On the one hand, a person in modern society has access to all the conditions for feeling happy since an average modern person lives in relatively comfortable housing, eats well and can diversify his/her diet, and has access to qualified medical services and educational resources. All these factors have influenced human life expectancy, which increased significantly as compared to previous ages [13]. However, a paradox arises: a person is surrounded by various benefits of civilization, but, despite all this, he/she suffers from depression and mental disorders, which are especially characteristic of modern developed countries with a high living standard [14]. On the other hand, because of the imposed stereotypes of success, people get exhausted by the race for competitive advantages and material benefits. This race makes people earn money with the last of their strength, without giving any opportunity to engage in self-development, to enjoy life. The lack of human relations and the decline of spiritual values in modern society make people less happy, resulting in uncertainty about the future, depression, and, ultimately, suffering [15]. The concepts of “happiness” and “suffering” are not only philosophical but also sociocultural phenomena that reveal the axiological, spiritual, and moral aspects of human existence in the context of the digital transformation of society [16]. One should not forget that material wealth, though it affects the level of a person’s well-being, does not always guarantee happiness. To be truly happy, a person should have the possibility not only to satisfy his/her basic needs but also to fulfill his/her desires, not only material but also spiritual ones.

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Design student perceptions on quality of EAP blended learning course

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Abstract. The present research investigates the delivery of the blended format course at a university level. The blended course was designed to teach English for academic purposes, and its quality was analysed through students perceptions. Research program comprised desktop analysis of scientific literature, a formative pedagogical experiment, qualitative and quantitative methods, observation, a survey, and interviews with open-ended questions. The findings showed that the quality of blended learning in teaching English is perceived positively: students liked the blended format in general; considered the online course content to be diverse and engaging; evaluated online exercises as convenient and motivating; perceived that the blended format assists in mastering foreign language competencies. LMS system was assessed as easy-to-use, although user-friendliness and stability of the online system were the negatively perceived factors that might influence the quality of education, and hence are recommended by the authors for enhancement and future research.

Keywords: quality, blended learning, English for Academic Purposes, EAP, university, tertiary level, design education

1 Introduction

The current educational system is undergoing some significant changes all over the world. Just a few decades ago, foreign language teachers used traditional methods, such as PPP (present – production – practice) and TTT (test – teach – test), recent decades have brought new methods – communicative approach, project method, storytelling, gamification and blended learning. It is the later one – blended learning – that has been known for a long time but has been revisited and reconsidered during special circumstances of 2020-2021. The term ‘blended learning’ appeared in the 1990-s, step by step overwhelming majority of universities all over the world introduced a virtual learning environment and tend to use it for blended learning.

Despite the fact that the method has been known for quite a long time, the rapid development of different digital tools for educational purposes and development of digital skills of both teachers and learners in recent years have made all parties of the educational

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process understand that this approach can provide higher academic results, contribute to teacher-to-student and student-to-student communication and compensate the lack of contact hours and resources. The pandemic situation forced many people to use either online or blended learning and it helped to evaluate both advantages and disadvantages of both. Being more flexible and effective, blended learning meets the demands of a younger generation who prefer the high speed of information flow and exchange and can quickly adapt to new means of communication [1].

E-learning process started a bit later in Russia compared to the USA and Bologna process members. No wonder that many education specialists in Russia till nowadays pay considerable attention to technical issues of e-learning and describe different possibilities [2, 3], and only start deeper research into the field. It is interesting that Russian universities start introducing an electronic component into foreign language teaching with electronic grammar books [4, 5] or for teaching English for academic purposes [6]. As for grammar, the electronic resource looks quite logical because it is grammar that takes a lot of time for drilling and it is a pity to spend time on it within a limited number of contact hours. English for academic purposes is supposed to help students to become part of international students’ and scientific society so it is also logical to place students into this international environment by electronic means, so foreign language teachers are introducing these elements as well [7, 8]. Moreover, it is the field that is developing and changing very dynamically and it is a once developed electronic element that could be updated and adjusted to new realia very quickly [6].

ESL courses have always been a platform for innovations and the place where advanced instructional strategies emerged and were introduced to practice [9]. E-learning instruments in teaching English for academic purposes have been implemented for many years and a variety of approaches have been proved as raising or at least ensuring a high level of education quality [10].

Quality is often differentiated into objective and perceived quality [11]. Being widely researched in the field of marketing and consumer behaviour sciences, the phenomenon of perceived quality can be successfully applied to the conceptional framework of education quality [12]. Objective quality within the domain of higher education refers to a measurable and verifiable evaluation of certain course attributes by predetermined standards of education. Perceived quality is then a student’s subjective judgment about the quality and depends on the individual context. Taking into account the perceived quality of a blended course is relevant in terms of personalisation of education and helping students to choose their individual learning path.

The current research aims at investigating the perceptions on the quality of blended learning and blended delivery of English courses at the tertiary level. The quality of e-learning became one of the most challenging questions widely researched and discussed on scientific and governmental levels during pandemics [13]. As the world is moving to the next normal, and e-learning will continue to be an essential part of the post-pandemic reality, it is reasonable to understand how the unity of offline and online instructions is perceived by students.

2 Materials and methods

The described blended learning course took place during one semester at Saint Petersburg State University of Industrial Technologies and Design. The course is based on the use of a traditional textbook “English for Academic Mobility” prepared by one of the authors of the experiment and supplemented with electronic activities in the university LMS Moodle. The presented research is an attempt to find out how the design students perceive and evaluate blended learning when it is incorporated into the regular educational process. In order to
know students’ opinions, a questionnaire was used as the main instrument. The questionnaire was made up in the students’ mother tongue for everyone (i.e. students with different foreign language competencies) to be in equal position when answering the questions, which ensures objective answers and thus research findings. The questionnaire was distributed online and was filled in by 87 out of 93 students who participated in the experiment. The survey was anonymous and carried out by the university Quality Assurance Department which is in line with the university policy and Bologna Process.

The electronic component of the course was developed by the article writers. Each online session includes (1) lesson plans to assist students in understanding where they are in the course and to assist those who missed a face-to-face class; (2) word lists to be memorized; (3) link to Quizlet resource with the aim to help memorize the useful vocabulary; (4) a text for extra-reading with both pre- and post-reading activities (themes of the texts are aimed at honing students’ learning skills); (5) more creative task such as video self-presentation, making up a personal development plan, writing an essay with peer-to-peer review and evaluation, compiling a CV, searching for and presenting MOOC courses for further professional development, etc. The online course was introduced due to a limited number of contact hours, limited resources in the classroom and with an intention to increase students’ involvement, interest and learning activity.

Even though the questionnaire covered a number of issues concerning the course (all in all 25 questions, three of which being open-ended), the current article presents only results connected with the blended learning format. Findings concerning the English language competencies development, students’ motivation to enhance their language skills and participate in international academic programmes are covered in other publications of the authors [14]. The current research covers six questions with the answers based on the Likert scale, the statements ranging from 1 – ‘The statement is absolutely wrong; it has never been like that’ to 7 meaning ‘The statement is absolutely true; it has always been that way’ and considers some of students comments provided in the open-ended question. It is interesting to mention that all 87 surveyed students used only 5, 6, and 7, which means blended learning is generally accepted positively and it makes this format very attractive for future application. Three open-ended questions allow students to share their opinion on the advantages and disadvantages of the blended format and gave learners the opportunity to give recommendations on the course further improvement.

3 Results

According to the results, the general perception of the blended format course is positive. Students considered it to be engaging and more convenient in comparison to the traditional format.

Data obtained from the interviews were visualised with the help of the Word Cloud tool. Figure 2 shows the most frequently used words from student responses on the questions covering the advantages of a blended format course and factors that positively influence its perceived quality. It can be seen that this mode of instruction is considered to be ‘interesting’ and ‘convenient’.

The prevailing majority of students emphasized in their answers the convenience of online home assignments and gamification elements, which are more diverse in the online environment. Rich teaching materials like online flashcards, quizzes, and multimedia materials were said to be the factors that a high quality blended course must possess. It is worth mentioning that students also liked the very idea of trying a new innovative method. Some of the responses are given below:

‘It was convenient that you can do tests and assignments at any time when it is convenient for you’.

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‘A new approach to learning English’.
‘It was fun to learn English this way. Using the modern approach was both interesting and relaxing’.

Quizzes, flashcards, MOOCs, video (for example, Obama’s speech) were great’.

Fig. 1. Student perceptions on the blended learning in teaching English for academic purposes.

Considering the quality of teaching and learning, it is reasonable to know the factors that make students perceive it negatively. Figure 3 shows that the main negative factor appears to be the online platform itself, i.e. Moodle LMS. Students mentioned ‘inconvenient website’, ‘absence of fast technical support’, ‘poor mobile version of the website’, ‘bugs’. The opportunity to add different teaching materials may cause a risk to overload students with home assignments. Some students noted that ‘Large amount of online homework demotivated to do oral tasks. No enthusiasm for speaking activities like
monologues and dialogues was left.’ There were only two respondents who didn’t like the blended format at all. And 16 students, almost 20% of students, stated that they loved everything and couldn't even mention any negative factors.

![Fig. 3. Keywords used by the respondents to describe negative factors.](image)

### 4 Discussion

The analysis of student perceptions on the blended learning in teaching English for academic purposes (Fig.1) made it possible to suggest some practical recommendations for EAP teachers and educational programmes designers.

Question #1 (Q1) demonstrates that the prevailing majority of students were satisfied with the quality of the blended form of course delivery. Almost half of the respondents (46%) answered that they liked the course format absolutely, while no one said the opposite. The blended form thus proves to be effective in teaching English for Academic Purposes in academia. While online learning is here to stay in the post-pandemic world, the university curriculum needs to allow students to assist their offline learning experience with online didactic components. Course designers have to consider blended learning as a tool for effective second language acquisition.

Question #2 (Q2) just confirms that LMS Moodle is convenient for users and highly possible due to the fact it is the world’s most popular learning platform across both academic and enterprise levels [22]. For the overwhelming majority of students, it was first experience using LMS, so in their comments, they mentioned that the website had bright colours and a user-friendly interface, it is convenient to get results immediately, one of the students even emphasized it was exciting to use peer-review function when checking essays of each other. However, there were opposite opinions as well: it takes time to get used to the website, not convenient to send to forums, the mobile version of the website does not work properly, etc. One of the experiment participants even noticed that this kind of work is difficult for people who are not good at technology.

Question #3 (Q3) shows that course developers managed to create really exciting and not tedious activities. More than 50% of the questioned agree that it was like that all the time or frequently. This is a good result as monotonous exercises make learners feel bored and too much variety distracts them from the learning points making to concentrate on the form of activities. There are a number of interesting comments here as well, students mentioned virtual cards for learning vocabulary, video, interesting texts, online tests as very good elements while the others complained that the texts could have been more adopted,
online tests do not show the right answers immediately, etc. However, none of these opinions was prevailing, so we can say these results are just sketchy data.

Question #4 (Q4) illustrates the general tendency of modern learners to prefer online exercises to traditional written formats of assignments [15]. Students preferences in the format of assignments are of critical importance and should be taken into consideration. The prevailing majority of respondents consider online exercises more convenient. They are diverse, rich in multimedia content and provide a quick response that stimulates the course engagement and supports motivation for the second language acquisition [16]. Answers to this question empirically prove the need for transferring at least some of the vocabulary and grammar drilling exercises to the online environment.

Question #5 (Q5) follows the results of the previous question in terms of convenience and makes an emphasis on self-organization and time management. Totally almost 66% of the respondents (points 7 and 6 according to the Likert scale) did online exercises in time, which means that online course components assisted them in performing the activities for self-study quicker and more effectively. The other 36% (5 points) of the questioned students also give positive responses. Self-organization, life-long education and time-management competences are mentioned among general competences for all bachelor degree students and for future designers as well [17, 18]. Such results are in line with other researchers in this sphere, even the figures are similar, for example, the survey in the English Sixth Form College showed that more than 60% of students believe that LMS Moodle helped to develop independent learning [19] and even more profound types of study with control and experimental groups confirm that using LMS increases students’ self-regulation [20]. Deadlines were set in the LMS Moodle to encourage students to do tasks in time. In open-ended questions explaining what students particularly liked and particularly disliked about the course an equal amount of students give practically opposite responses: some mentioned possibility to do tasks when it is convenient as a positive thing while the others mentioned deadlines as a negative feature.

Question #6 (Q6) touches on the learning outcomes and supports the hypothesis that blended learning helps students develop their language competencies. 38% of students agree with this statement. Moreover, no one considered the blended format ineffective in terms of obtaining the target course competencies. This factor is crucial in measuring the perceived quality of a blended course.

5 Conclusion

It is worth emphasizing that even though very few students do complain about using LMS and other technologies in the educational process, we still cannot neglect their opinion. Teachers here have to adopt new roles, to be facilitators rather than teachers, and even encourage students to use new technologies and there are two serious reasons already identified in the educational professional society. First of all, due to constant changes in the modern world and lifelong learning strategy, future education is unthinkable without technologies (so the young generation should not be excluded). Moreover, being able to manage the technology is the skill that all of us need (and will need even more) to face the needs and demands of the XXI century [21] and to become a professional in any field.

Students perceptions on the blended course quality showed a positive trend towards new methods and technologies brought to academia. Blended format is perceived as having the same or even higher quality than a traditional course. While there are no generally accepted quality standards for blended learning in higher education in Russia, it is reasonable to use the perceived quality indicators during the process of course design and delivery as guidance. Crucial factors to be kept in mind are the stability and user-friendliness of an LMS and amount of home assignments. Further research on the topic can research the
balance between offline and online hours and factors influencing the quality perception of an online learning platform.

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On the structure of electronic educational dictionary of verbs (Russian, Turkish, English)

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Abstract. The article discusses the problems associated with the development of electronic interactive lexicography and the possibilities of its use in the educational process of a modern university. As an object of analysis, the authors choose a certain type of dictionaries: interactive educational dictionaries as the most relevant to the goals and objectives of obtaining an education in a foreign language. The article presents the draft of an electronic dictionary “Verbs and Verb Derivatives: Russian, Turkish, English”. The dictionary is aimed at Turkish students mastering the Russian language who have a good command of English. According to the authors of the article, an electronic educational dictionary can become not only a source of information about the Russian prefixal verb and its derivatives, but also a tool for introducing new knowledge into the educational process, and the interactive form of the dictionary opens up new possibilities for putting this knowledge into practice. As a result of the study, the authors conclude that the educational potential of electronic lexicography is growing. The authors highlight such characteristics as openness, accessibility and mobility as priority qualities of an electronic interactive dictionary. The creation of the dictionary seems to the authors to be extremely important and timely, since the growing interest in studying the Russian language in Turkey leads to the appearance of a large number of pseudoscientific works oriented to the mass consumer and do not reflect the complex structure of the Russian language and the overall meaning of the Russian verb.

Keywords: electronic lexicography, educational dictionary, interactive dictionary, verb vocabulary, verb derivatives, methods of teaching foreign languages.

1 Introduction

With the development of computer technology, educational lexicography, which has long been in stagnation, acquires new features, the main of which are its absolute openness,
accessibility and mobility. Assessing the priority qualities of electronic dictionaries, V.M. Andryushchenko and V.V. Morkovkin noted: “Electronic interactive dictionaries not only exceed book volumes, but find the searched word or phrase in a few seconds, and the search is carried out in any form from the entire huge volume of dictionaries” (Andryushchenko, Morkovkin, 1988, p. 234) [2].

Translation of an array of lexicographic data into electronic media not only allows to improve the traditional educational process, but also opens up new opportunities for studying foreign languages and using them as a tool for obtaining professional knowledge. The latter becomes possible due to the continuous improvement of training programs, updating of search computer systems, allowing to describe the language units of different levels in a more comprehensive way.

The educational electronic dictionary “Verbs and Verb Derivatives: Russian, Turkish, English”, the draft of which is presented in this article, is one example of obtaining comprehensive information about the Russian verb in an interactive form based on knowledge of the Turkish language for students and using the English language as an intermediary tool.

2 Methods

The main goal of this study is a comparative analysis of Russian prefixal verbs, verb derivatives and their Turkish and English equivalents for subsequent inclusion them in the lexi-co-grammar dictionary “Verbs and verb derivatives: Russian, Turkish, English”. To achieve this goal, the authors distinguish the main models of Russian prefixal verbs and verb derivatives, identify the peculiarities of the translation of Russian prefixal verbs into Turkish and English and analyze the types of lexicographic information about the verb in dictionaries of different types.

The authors use the following research methods: descriptive method - to highlight culturally specific vocabulary; the method of lexicographic analysis developed by Russian school of lexicography; the method of comparative analysis, known in world lexicographic practice as dictionary criticism, as well as sociological methods.

To solve the tasks set in the work, the authors analyzed the linguistic and pedagogical literature on the problem. The “basic” works of such scientists as Sazonova [2], Tikhonov [3], and Hidekel [3] have become important for understanding the principles of verb lexicography. Modern lexicography studies have helped to identify and describe the algorithm for introducing electronic interactive dictionaries into the educational process; especially it is important to note the works of Erdem [5]; Baskin, & Mumcu [6]; Alhatmi [7]; Berg, & Keith [8]; Erdogan, Bozkurt, & Doğru [9]; Kaneta [10]; Karpov, Dobrovolsky, & Nuriev [11]; Metruk [12]; Liang, & Xu [13].

3 Results

The presented electronic dictionary summarizes the experience in compiling educational dictionaries accumulated by Russian and Turkish science. In terms of fullness, this is a concise dictionary. From the point of view of the scope of inclusion, this is a lexi-co-grammar dictionary. The name indicates the content and orientation of the dictionary: “Verbs and verb derivatives: Russian, Turkish, English”. The dictionary includes the most common Russian verbs, their prefixes and equivalents in Turkish and English.

In this case, a Russian verb is the dictionary equivalent of a Turkish word or phrase. Such equivalents convey the maximum information about the given prefixal Russian verb or verb
phrase. For instance:

пробить (сов.): пробью, пробьёшь несов. пробивать (bir şeyi bir şey ile) delmek, delik açmak пробить дорогу yol açmak

Verbs are presented in the indefinite form. The leading features of the verb are the mood, transitivity / intransitivity, and peculiarities of the verb government. The form of the verb (perfective/imperfective) is always graphically fixed, and the second indicator (transitivity / intransitivity) is only explained by an appropriate example. One of the verbs of the pair has an independent vocabulary entry, and the second - a reference. For instance:

разбивать (несов.): разбью, разбьёшь разбивать (bir şeyi bir şey ile) delmek, delik açmak разбить дорогу yol açmak

Verbs are arranged in alphabetical order, indicating possible distributors. For instance:

вбить (сов.): вбью, вбьёшь несов. вбивать çakmak, kakmak вбить мяч в ворота gol atmak вбить в голову birinin aklına sokmak (+ д.п.) вбить себе в голову kendi aklına koymak, kafasına koymak

A bilingual dictionary is a translation dictionary, so the meanings of the words of the input language are not interpreted extensively. Only in some cases the most successful, from the point of view of the authors, interpretations are used if they or their combinations are recorded in explanatory or educational dictionaries.

The dictionary does not claim to be a complete description of all the meanings of the given verbs and their possible syntactic connections. For educational purposes, only the most characteristic values and relationships are highlighted. For instance:

набрать (сов.): наберу, наберёшь несов. набирать 1. toplamak; almak (+ р.п. или + в.п.) набрать номер питарагы çevirmek (telefon) набрать скорость hiz almak, hızlanmak набрать высоту iritiş ałmak (uçak); tırmanmak 2. toplamak, almak, tutmak, kaydını yapmak 3. düzmek, tertip etmek, düzenlemek

The dictionary consists of two parts. The first part contains Russian prefixal verbs and their Turkish equivalents, the second contains a grammatical commentary.

The analysis of many bilingual dictionaries leads to the conclusion that grammar is not often given much attention in them, although the effectiveness of a dictionary largely depends on the completeness and relevance of the information it contains.

Grammatical commentary in a bilingual dictionary seems relevant, since the dictionary is a single and autonomous translation tool. “A bilingual dictionary is a particular book in which the most relevant is information about the methods of translating grammes (members of the grammatical category, for example, case, tense, etc.) from one language into another, and about interlanguage grammeme matches” (Berkov, 2004, p. 196) [14]. However, when asked about what kind of material should be included in the grammatical commentary, there is no consensus among scientists. The components proposed by the authors are:

1. The grammatical minimum, that is, carefully and strictly selected information on the morphology (in this case, on the morphology of the verb) of the Russian language, which includes only those essential points, without which it is impossible to use the dictionary: information about the category of aspect (perfective/imperfective verbs), transitivity, reflexivity and paradigmatic features of the verb.

2. A summary table of inflectional formants (prefixes and verb inflections) indicating which morphological alternations the use of one form or another can be accompanied.

3. Basic information from the field of syntax: since the use of specific lexical units in a text always causes certain difficulties for foreigners, providing contexts is not just desirable, but necessary.

4. For users’ convenience, there is a list of all the verbs used in the dictionary indicating the pages on which they are located.

The so-called “nest” principle is chosen as a structural basis for building a dictionary.
According to many linguists, this kind of dictionary has a number of advantages compared to the alphabetic explanatory dictionary, especially for foreign students. In such a dictionary, it is possible to reflect the systemic connections of cognate words (in this case, verbs) based on their semantic interdependence (Petrov, 2001, p. 131) [15].

The lexical base of the dictionary is composed of primary non-prefixal verbs, which in the Russian language are mainly imperfective verbs (with the exception of the verb «купить» and some others). Prefixal derivatives are arranged around a motivating verb in alphabetical order. Moreover, for a bilingual dictionary, it is not advisable to interpret only the motivating word: the native speaker of the Turkish language perceives each prefix as a new lexical unit, therefore, each derivative (verb and verb formation) needs interpretation.

The disclosure of the meanings of derivatives of verbs in a dictionary entry is conducted in stages, through a system of hyperlinks of different levels, for each lexical unit separately. For instance:

Hyperlink of the 1-st level

Читать

Hyperlink of the 2-d, 3-d and 4-th levels

- **вчитаться** (сов.): вчитаюсь, вчитаешься
- **вычитать** (сов.): вычитаю, вычитаешь
- **дочитать** (сов.): дочитаю, дочитаешь

Hyperlinks of the 5th and 6th levels

- **вчитаться (несов.):** вчитываться, вчитываясь
- **вычитать (несов.):** вычитывать, вычитывая
- **дочитывать (несов.):** дочитывать, дочитывая

Given the educational nature of the dictionary and the linguistic peculiarities of the audience to which it is oriented, it is justifiable to include verb derivatives of each verb in the dictionary article (hyperlinks of the 5th and 6th levels). In this case:

**Verbal Nouns**

- Чтение от читать: Okuna
- Читка от читать: Okuta, sesli okutma
- Читатель от читать: Okur
- Читательница от читатель: Okur
When determining the word-building relationships of the original verb, the data of the dictionary by A.N. Tikhonova [3] are taken into account, and the interpretation is based on the Small Academic Dictionary (SAD), edited by A.P. Evgenieva [16] and the Russian-Turkish dictionary by E.M. Mustafayev and V.G. Shcherbinina [17].

The introduction of English as an intermediary language helps activate the already formed logical connections between the elements of the morphological system of Turkish and English, thereby ensuring that trainees (users) learn the Russian verb system. Information about the English verb is presented through hyperlinks of the 7th–10th levels:

- **вчитаться (сов): юсь несов вчитываться (в + в.п.)** get a grasp of (a text)
- **вчитываться (несов): юсь сов вчитываться (в + в.п.)** try to grasp the meaning of
- **вычитать (сов): ю несов вычитывать 1. find (by reading) я вычитал сообщение о его смерти в газете I found a report of his death in the newspaper 2. read, proofread (type)**
- **вычитывать (несов): ю сов вычитать** reprimand, tell off
- **дочитать (сов): ю несов дочитывать 1. finish reading 2. (до + р.п.)** read (as far as)
- **дочитывать (несов): ю сов дочитать**

Since the enumeration of forms of possible distributors, presented in such dictionaries cannot provide exhaustive information about the possibilities of the functioning of words in speech and is difficult to understand, the maximum number of examples are included in dictionary entries illustrating individual variants of compatibility of each verb. Examples are given in Russian, Turkish, English.

To raise the efficiency of the educational dictionary, the number of dictionary entries has been increased. In addition to the “nest” arrangement of the language material, an alphabetical list of all the verbs included in the dictionary is provided at the end of the dictionary, indicating the paradigm in which each verb is included.

### 4 Discussion

The verb acts as the organizing center of the sentence of any language. It is the verb that, when combined with other words, reveals the peculiarities and national character of a certain language.

Being the most complex class of words in terms of composition, in a system of parts of speech verbs are opposed to nouns: they have conjugation forms and are the basis of the syntactic category of predicativity. Because of this, the verb becomes the main object in teaching speech, and the identification of syntagmatic connections of verbs is the main task of many lexicographic studies [18, 19].

Lexicography, along with grammar, is one of the two main ways of describing a language system. Its main external feature is the regular placement of language units that are homogeneous in some respects, together with their standardized “lexicographic” descriptions.
The analysis of various types of dictionaries allows us to conclude that both in Russian and Turkish theoretical and practical lexicography, various lexicographic information about the verb has been developed, justified and used. The dictionaries provide the following information: 1) entries of dictionary articles 2) head words; 3) meanings; 4) synonyms, paronyms, homonyms, antonyms; 5) word-formation patterns of verbs; 6) contexts and compatibility; 7) orthoepic and spelling features; 8) stress; 9) stylistic markers; 10) verb forms, etc. [23, 24, 25, 26, 26]

However, the following information is not included: 1) the semantics of prefixal verbs based on the pattern of the word-formation type; 2) presentation of lexico-semantic groups of the same type of verbs; 3) information aimed at identifying the relationships between verb vocabulary and the style structure of texts; 4) syntactic constructions based on the systematic nature of the information model; 5) the presentation of typical structural schemes by which derived verbs are semanticized; 7) verb derivatives; 8) comprehensive information about prefixal verbs and their derivatives. In this regard, the necessity of creating a grammar dictionary “Verbs and Verb Derivatives: Russian, Turkish, English” as part of systematic representation of the Russian language in comparison with Turkish and English seems very relevant.

The creation of such a dictionary seems extremely important and timely: an increasing interest in studying the Russian language in Turkey leads to the appearance of a large number of pseudoscientific works oriented to the mass consumer, which do not reflect the complex structure of the Russian language, the overall complex meaning of the Russian verb. All this determines the relevance of the study.

5 Conclusion

The category of the aspect of the verb in the Russian and Turkish languages can be expressed in various ways, the most common of which in the Russian language is morphological (prefixation and suffixation), and in Turkish it is non-morphological (analytical, paraphrases and reduplicates) one. The aspect of the verb is closely connected with the mode of action, the form of expression of which in Russian can be a prefix and inflected derivational affix, and in Turkish an inflectional suffix; the meaning of the Russian prefix in the Turkish language is “compensated” by either a suffix or an auxiliary verb or an adverbial form.

Being a traditional means of perfectivation, the Russian verb prefix does not always “fit” into the grammatical system of the Turkish language, which creates difficulties when translating them from Russian into Turkish and from Turkish into Russian.

Verb derivation, widely represented in Russian and Turkish, demonstrates models of formation of verbal verbs, nouns, adjectives and adverbs, while the most difficult thing for a foreign user is the differentiation of the meanings of verbal verbs and certain verbal nouns as forming the largest number of synonymic and paronymic connections.

In presentation of verb vocabulary in bilingual dictionaries it is advisable to take into account the principle of ‘nest aspect’, which removes the problem of “pairing” of Russian verbs, and the traditional aspect and methods of verb mode are integrated into one model.

The creation of an interactive electronic educational dictionary aimed at describing verb vocabulary is one of the ways to replenish the lexicographic base of the Russian and Turkish languages, and systematic work with lexicographic material significantly affects the formation of the communicative competence of Turkish students studying Russian.
References


Methodology of monitoring the quality of teaching on disciplines in the university system

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Abstract. In a research article, on the basis of a large material, a methodology for monitoring to identify the effectiveness of the educational process in the university system is shown, the relevance is substantiated, concluding the need for planning, organizing, conducting and evaluating, monitoring the internal quality of education, in order to improve the functioning of the educational process, a methodology for monitoring to determine the quality of teaching of academic disciplines taught at the university, students of full-time bachelor’s and master’s degrees took part in the survey, in the number of 1839 respondents, through the use of computer and digital technologies, guided by the principles of anonymity and voluntariness, the analysis of the results, carried out on the basis of the data obtained, revealed a high level of student satisfaction with the professional level of teaching at the university (88% of positive answers), which makes it possible to develop proposals for the adoption of management decisions that need to be worked on by the teaching staff in the future.

Keywords: identification, functioning, teaching quality, educational process, management decisions

1 Introduction

At the present stage, Russian education faces a priority task, due to the demand for improving the quality of education in the higher education system, which is actualized by the need to train specialists who can bring our country to the forefront in key areas of economic, social and cultural development [1-4]. The issues of improving the quality of education around the world, the methodology, criteria for assessing its level and the search for ways to modernize are of concern to researchers and scientists around the world [5-7].

The effectiveness of the educational process is determined by its quality. A high level of education quality is possible when working in the following areas: improving the state system for assessing the activities of educational institutions and organizations; search for forms, mechanisms for assessing and monitoring the quality of the educational process;

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creation of an eco-university system for assessing the quality of education, planning the organization and implementation of measures for internal assessment of the quality of education by the university [8-10]. As part of the program for the implementation of measures in accordance with the Regulations on the system of internal independent assessment of the quality of education [11, 12] at the FSBEI HE CHSPU on October 27, 2020, a survey was conducted of students enrolled in full-time bachelor’s and master’s programs, aimed at finding out the satisfaction of students the quality of teaching of academic disciplines, in May and June 2021. Purpose: Determination of the quality level of teaching in academic disciplines to improve the functioning of the educational process at the university.

Tasks: 1. Justify the relevance and develop a program for organizing and conducting monitoring.
2. Conduct monitoring to determine the level of teaching quality in academic disciplines.
3. Based on the collected data, analyze the results of monitoring the quality of teaching in academic disciplines at the university.

2 Materials and methods

The department for the quality of professional education of the educational and methodological management of the university-developed questions for the questionnaire determined the goal, objectives and assessment criteria. For the purpose of high quality monitoring, consultations were held with the leading specialists of the university, specializing in the areas of philosophy, sociology, psychology and pedagogy. Based on the large volume of material, the number of participants and time characteristics, it can be argued that this study met the monitoring criteria [13-16]. The monitoring organization included the following procedures: identification and formulation of goals and objectives, definition of the subject area and object, collection of factual material, assessment and analysis, forecasting changes and recommendations for making management decisions. The goals and objectives were communicated to students, teachers and heads of university departments, and the importance and sequence of taking part in the survey were substantiated, passing through the program for determining the level of education quality.

Depending on the answer, each question was assigned a number of points in accordance with the following criteria:
- yes – 2 points (quality appears almost always);
- sometimes – 1 point (quality appears sometimes);
- no – 0 points (there is practically no quality).

The survey was carried out using computer and information technologies available at the university, among students of 5 faculties and 2 institutes. The total number of students enrolled in full-time bachelor’s and master’s programs in the academic year 2020/2021 was 2938, 1839 students took part in the survey, which was 62% of the total number of students and this allows providing data with a high degree of representativeness. The monitoring participants were informed about the voluntariness and anonymity of the questionnaire, and that the results would not be reflected and would not affect their assessments in the final attestation.
3 Results

Table 1. Results of monitoring to determine the quality level of teaching academic disciplines

<table>
<thead>
<tr>
<th>№</th>
<th>Questions (%)</th>
<th>Yes (%)</th>
<th>Sometimes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Does the teacher use information and communication technologies?</td>
<td>80.6</td>
<td>14.4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Does the teacher use an interdisciplinary approach in the context of related disciplines?</td>
<td>83.3</td>
<td>13.5</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Does the teacher show exactness, and adherence to principles in relation to the students?</td>
<td>90.1</td>
<td>7.6</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Does the teacher, in your opinion, have erudition, broad outlook and competence in the taught discipline?</td>
<td>93.6</td>
<td>4.6</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>To what extent, in your opinion, does the teacher explain the material in an accessible and intelligible way, observing the culture of speech and ethics of interpersonal relations?</td>
<td>93.6</td>
<td>4.6</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Does the teacher observe labor discipline (starts and finishes classes on time)?</td>
<td>95.2</td>
<td>3.6</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Does the teacher contribute to an increase in interest in research work, in a future profession?</td>
<td>89.6</td>
<td>7.3</td>
<td>3.2</td>
</tr>
<tr>
<td>8</td>
<td>Do you feel the teacher’s interest in transferring knowledge (desire to teach you); worry about students?</td>
<td>92.0</td>
<td>5.8</td>
<td>2.2</td>
</tr>
<tr>
<td>9</td>
<td>Does the teacher introduce you to the rating plan, topics for self-study and a possible form of control in advance?</td>
<td>90.2</td>
<td>7.7</td>
<td>2.1</td>
</tr>
<tr>
<td>10</td>
<td>Does the teacher use various forms of training (case assignments, test questionnaires, trainings, group assignments, etc.) when conducting practical or seminars?</td>
<td>82.6</td>
<td>13.5</td>
<td>3.8</td>
</tr>
<tr>
<td>11</td>
<td>Do you want to choose this teacher in the future to be the scientific supervisor of your coursework, final qualification work, research project?</td>
<td>84.2</td>
<td>9.2</td>
<td>6.6</td>
</tr>
<tr>
<td></td>
<td>Arithmetic mean</td>
<td>88.6</td>
<td>8.35</td>
<td>3</td>
</tr>
</tbody>
</table>

4 Discussion

The results of the questionnaire survey on the first question showed a low percentage (in comparison with other questions) of the use of information and communication technologies by teachers (Fig. 1.)

Fig. 1. Does the teacher use information and communication technologies?
80.6% of respondents answered this question definitely – yes, 14.4% – sometimes, 5% think no. The percentage of those who rarely use and do not use information technologies in teaching also remains quite high.

**Fig. 2.** Does the teacher use an interdisciplinary approach in the context of related disciplines?

When asked about the teacher’s use of an interdisciplinary approach in the context of related disciplines, the percentage of those who answered positively turned out to be higher than in the previous question (83.3%). Not so clear are the answers of students to this question – definitely – yes, 13.5% – sometimes, 3% think no (Fig. 2).

**Fig. 3.** Does the teacher show exactingness and adherence to principles in relation to the students?

To the question “Does the teacher show exactingness and adherence to principles in relation to the students?” The answers were distributed in the positive direction, with a high percentage (90.1%). The high response rate to this question is alarming (Fig. 3). Do most teachers use an authoritarian teaching method? Although the percentage of those who are
loyal to the issues of exactingness and adherence to principles in teaching is still high (7.6%).

Fig. 4. Does the teacher, in your opinion, have erudition, broad outlook and competence in the taught discipline?

The question of erudition, a broad outlook and competence of a specialist, and his proficiency in his subject professionally, as well as the availability and clarity of the explanation of the material, observing the culture of speech and ethics of interpersonal relations, is relevant and, probably, will be promising in the future.

Fig. 5. To what extent, in your opinion, does the teacher explain the material in an accessible and intelligible way, observing the culture of speech and ethics of interpersonal relations?

On this question, the answers were distributed in the following order: the overwhelming majority of respondents 93.6% answered this question (Figs. 4, 5) definitely – yes, 4.6% –
sometimes, 2% believe that the teacher does not have erudition, broad outlook and competence in the taught discipline and does not clearly explain the materiel.

**Fig. 6.** To what extent, in your opinion, does the teacher explain the material in an accessible and intelligible way, observing the culture of speech and ethics of interpersonal relations?

Does the teacher observe labor discipline (starts and finishes classes on time): 95.2% of the respondents answered this question definitely – yes, 3.6% – sometimes, 1% think not (Fig. 6). Of all the indicators on the six previous questions, the lowest percentage in the negative answer on the items “sometimes” and “no”. Perhaps this is due to the high level of control over the labor discipline of the teaching staff during training sessions by the teaching and methodological department of the university. In the question “Do you feel the teacher’s interest in transferring knowledge (desire to teach you), worry about students”, the answers were distributed in the following order: 92% of respondents answered this question definitely – yes, 5.8% – sometimes, 2.2% think that is not (Fig. 7).

**Fig. 7.** Do you feel the teacher’s interest in transferring knowledge (desire to teach you); worry about students?
The answers show a high level of awareness and responsibility towards the society of teachers, about the need to disseminate and transfer knowledge to students.

![Fig. 8. Does the teacher introduce you to the rating plan, topics for self-study and a possible form of control in advance?](image)

Reasonableness of the answers to the question “Does the teacher first introduce you to the rating plan, topics for independent study and a possible form of control?” due to the fact that recently, to the detriment of many issues, attention has been focused on planning and control documents: 90.2% of respondents answered this question definitely – yes, 7.7% – sometimes, 2.1% answered no (Fig. 8).

![Fig. 9. Does the teacher use various forms of training (case assignments, test questionnaires, trainings, group assignments, etc.) when conducting practical or seminars?](image)

The use of various forms of teaching by teachers in conducting practical or seminars (case assignments, test questionnaires, trainings, group assignments, etc.) is one of the weaknesses of teaching in the university system. Due to the large volume of study load, work with documentation, there is not enough time to prepare and use new and diverse
forms of education: only 82.6% of respondents answered this question definitely – yes, 13.5% – sometimes, and 3.8% answered, which is not (Fig. 9).

**Fig. 10.** Does the teacher contribute to an increase in interest in research work, in a future profession?

Answers to the question “Does the teacher contribute to an increase in interest in research work, in the future profession?” justified by the fact that, in comparison with leading universities, the scientific potential of the university has room to grow, and therefore the answers were distributed in the following order: 89.6% of respondents – a teacher contributes to an increase in interest in research work and in a future profession, 0.3% – answered, that “sometimes” and 3.2% answered “no” (Fig. 10).

**Fig. 11.** Do you want to choose this teacher in the future to be the scientific supervisor of your coursework, final qualification work, and research project?

The answers to the question “Do you want to choose this teacher in the future as the supervisor of your coursework, final qualification work, research project” (Fig. 11) were distributed in the following order: only 84.2% of respondents answered positively. The answers “sometimes” and “no” became alarming, which totaled 15.8%. Although in the previous question about the level of research knowledge among teachers, the percentage of positive answers was high, but those wishing to choose this teacher in the future as the
scientific supervisor of the course, final qualifying work, research project turned out to be an order of magnitude lower. Perhaps this is due to the fact that, depending on the level of the scientist, the requirements are high.

5 Conclusion

1. It was revealed that the indicator of students’ satisfaction with the quality of teaching academic disciplines is, according to the results of the analysis of the research data, – 88%, which corresponds to a high level.

2. Based on the analysis of the monitoring results, proposals will be developed to improve the functioning of the educational process of the university, the quality of teaching in academic disciplines, and management decisions will be made.

Perhaps, if in the future we conduct a study on the areas of student satisfaction with the educational process, the quality of educational and extracurricular activities, the data will be more complete, which will make it possible to make effective decisions to improve the efficiency of the functioning of the educational proc.

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Electronic terminology dictionary of the specialty language: content, structure, implementation

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Abstract. The article discusses the requirements for an electronic terminology dictionary as a component of the system for teaching foreign students the language of their specialty. A complete and accurate understanding of the meaning of a term by a student cannot be achieved without the help of an appropriate terminology dictionary that offers various ways of semantization. At present, there is no resource in which all the terminological minimums of special disciplines would be brought into a single system. This gap can be filled by an electronic terminology dictionary, the search system of which would allow: 1) to present terms in structural, semantic and functional aspects; 2) show terminological units as constituent elements of the termosphere; 3) combine the information and training potential of electronic educational resources on one platform. In terms of solving these problems, the article discusses the general concept of such a dictionary and particular issues of its implementation (the structure of the dictionary, the content and structure of the dictionary entry, a set of relationships between terms, etc.). The problem of minimizing the terminological material for inclusion in the dictionary is discussed, as well as the problem of choosing a descriptor term. The peculiarities of the implementation of the electronic version of the dictionary are described, while attention is paid to maintaining the logical integrity of the terminological system and providing convenient access to the content of the resource. It is concluded that such a resource is important and necessary: it allows you to structure and accumulate information relevant to several areas of knowledge, to perform a semantic search for data in information storage and network. In practice, such a resource greatly facilitates the process of mastering general educational programs in Russian for a foreign user (student).

Keywords: electronic lexicography, terminology dictionary, dictionary entry, specialty language, Russian language, Turkish language.

1 Introduction

The study of terminology in our work is not accidental. Mastering the language of a specialty in a foreign language is a complex process associated with solving a very different range of problems, including the adoption of a “foreign” terms framework, its “cognitive structuring” and activation in professional speech. These are the most difficult problems that require a

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special approach to the organization of the educational process. In this regard, the search for a certain tool for consolidating “resources of knowledge” and the involvement of digital educational technologies for these purposes is of particular importance.

Nowadays digital technologies are widely used in the educational process of universities. Their use in the process of teaching Russian as a foreign language helps to solve a number of important tasks related to the organization, didactic and methodological support of both classroom and independent work of students. The use of electronic textbooks and manuals, electronic dictionaries and databases, teaching and controlling computer programs and various applications as a supplement to traditional teaching aids, helps to intensify the process of learning a foreign language. It gives students the opportunity to choose an individual strategy for mastering the material, to monitor their own achievements at various stages of work and identify skills that need correction.

The problem of creating electronic educational dictionaries is relevant, but insufficiently developed in scientific terms. Educational lexicography in its electronic form in most cases is limited to a narrow range of purely applied tasks (creating glossaries, terminological minimums for courses, dictionary comments to assignments, etc.) and is not systematic. There are other negative aspects of existing electronic resources:

1) the methodology of educational dictionaries is not always based on psychological and physiological data, so the mechanisms of perception and assimilation of digital material by specific categories of users are not taken into account;
2) the content of dictionaries is unified, there is no reliance on a specific ethnic scientific school of the user;
3) the structure of dictionaries is difficult for the perception of a foreigner studying Russian, the language of his specialty.

The purpose of this work, as we see it, is the presentation of the concept of a multimedia terminology dictionary of the language of the specialty, which takes into account the needs of a foreign student who masters the terminology of a particular discipline in Russian.

2 Methods

Trying to find a solution to the problem of creating an “optimal terminology dictionary”, we rely on the data of modern computer lexicography [1, 2, 3] and use NLP (Natural Language Processing) methods [4, 5, 6]. From this position, we single out such basic characteristics of the electronic terminology dictionary as the multiplatform orientation of the operating system (OS platforms Linux, Solaris, Windows), multilingualism, multimedia and the interactive nature of the content.

We have analyzed the market of existing electronic dictionaries to identify trends and prospects for its development, taking into account the actual subject orientation of the content. Electronic versions of printed lexicographic publications, on the one hand, and dictionaries created specifically for use in electronic format, on the other hand, form a common information technology lexicographic field. The specificity of the second group is a wide additional functionality provided by computer programs on the basis of which dictionaries are created [7]. “Most researchers are inclined to believe that an electronic computer dictionary requires a special approach and the development of a computer program that could allow users of various levels (from ordinary native speakers to scientists) to use the vocabulary base of each particular vocabulary genre as productively as possible” [7, p. 46].

It can be stated that at present, two alternative approaches to the analysis of material have been formed in computer lexicography - formal (logical) and linguistic. The first (formal) is
based on logic (first-order predicates, descriptive, modal, etc.) [8, 9]. The second (linguistic) is based on the study of language (lexicon, grammar), analysis of the language corpus and construction of thesauri based on it [10, 5, 4]. Combination and “intersection” of approaches makes it possible to create resources with elements of formal axiomatics and logical systems with linguistic knowledge [11, 12]. The terminology dictionary proposed by us also belongs to the latter type.

3 Results

The analysis of linguistic, psychological and methodological literature allows us to conclude that the process of assimilation of terminological vocabulary by a non-native speaker has a number of specific characteristics that should be taken into account when working on a dictionary. Knowing and competently using the general and particular patterns of the process of assimilation of terminological material, the dictionary compiler can achieve better results of his work.

The presented terminology dictionary summarizes the experience of compiling educational dictionaries accumulated by Russian and Turkish science [13, 14, 15, 16]. In terms of its orientation, it is a dictionary of professional terms. From the point of view of the sphere of inclusion, this is a lexico-grammatical dictionary. The dictionary includes the most commonly used terminological units and their derivatives that are relevant for a foreigner learning the language of a specialty (biology, physics, chemistry, mathematics, literature) in Russian [17].

When determining the terminological minimum, we proceeded from the fact that the selected vocabulary should reflect the central structural and semantic features of the specialty language, on the one hand, and be accessible to foreign students, on the other. When selecting terminological units, we followed the generally accepted principles of vocabulary selection, such as subject value, educational and methodological expediency, frequency of use within a particular discipline.

To display the linguistic structure in the dictionary, the nesting principle is used, which makes it possible to most fully reflect the systemic connections of single-root words (in this case terms).

The dictionary has a block construction principle. The lexical base of each block is made up of terminological units of a particular subject area. The revealing of the meanings of terms and their derivatives in a dictionary entry is carried out in stages, through a system of hyperlinks of different levels, for each lexical unit separately. When determining the word-formation links of the motivating word, the data of A.N. Tikhonov [18] are taken into account, while the explanation is based on the current terminology dictionaries (including bilingual, educational).

3.1 Biological block

For example, for units of a biological block, the system of hyperlinks for a noun term might look like this:

**Motivating word (descriptor)**

Гибрид, ‘hybrid’, муж. ‘male’ (Lat. *hybrida*). Организм, развившийся из зиготы, образованной в результате слияния двух генетически разнородных гамет, принадлежащих разным родителям. (An organism that develops from a zygote formed as a result of the fusion of two genetically dissimilar gametes belonging to different parents.)
3.2 Physical block

For physical block units, the following example can be given:

Motivating word (descriptor)
Квант, ‘quantum’, муж. ‘male’ (Lat. quantum). Наименьшее количество какой-нибудь физической величины, обладающее самостоятельным существованием. (The smallest amount of any physical quantity that has an independent existence.)

1st level hyperlinks
Квантовый, квантовать, квантификация, квантометр, квантоэлектрический, гамма-квант

2nd level hyperlinks
Квантовомеханический, квантовоэлектростатический

3rd level hyperlinks
Электричество, гамма II, механика

4th level hyperlinks
Квант действия
Квант магнитного потока
Квант света фотон (аскриптор)

3.3 Philological block

For units of the philological block, the following example can be given:

Motivating word (descriptor)
Образ ‘image’, муж. ‘male’. Категория эстетики, характеризующая особый, присущий только искусству способ освоения и преобразования действительности. Образом также называют любое явление, творчески воссозданное в художественном произведении. (A category of aesthetics that characterizes a special way of mastering and transforming reality, inherent only in art. Any phenomenon creatively recreated in a work of art is also called an image.)

1st level hyperlinks
Образный, безобразный, прообраз, звукообраз, первообраз

2nd level hyperlinks
Образно, образность, безобразность, первообразный

3rd level hyperlinks
Первообразность

Given the educational nature of the dictionary and the language specifics of the audience it is aimed at, it is justified to include in the dictionary entry the most common (carefully selected) combinations with the indicated terms (hyperlinks of the 4th, 5th, 6th, etc. levels).

For example, for the word image, these can be combinations:

a) with a noun - the main term word (образ автора, повествователя ‘image of the author, narrator’, образ (главного) героя ‘image of the (main) character’).
b) with a noun and dependent noun term (система образов ‘a system of images’, идея образа ‘an idea of an image’);
c) with a noun and an adjective (художественный образ ‘artistic image’, собирательный образ ‘a generalized image’);
d) with a verb and a dependent noun (рисовать / нарисовать образ ‘draw an image’, вживаться / вжиться в образ ‘get used to the image’);
e) with a verbal derivative and a dependent noun (создание образа ‘creating an image’, построение образа ‘building an image’, формирование образа ‘forming an image’).

The inclusion of such combinations helps to activate the already formed logical connections between the elements of terminology and morphological systems of the contacting languages, thereby ensuring the assimilation of a particular terminological system by the trainees (users).

3.4 General guidelines

The electronic format of the dictionary allows you to use both the main advantages of digital resources (high search speed, hypertext capabilities, multimedia, interactivity), and those that are relevant specifically for a foreign student when mastering the language of a specialty. We will name some of them.

1. Possibility to search by incorrect form. In the case of poor knowledge of not only the language of the specialty, but also written speech, which is quite often observed in the first years, a foreign student can use the predictive input function, which allows you to enter words in any form, search by a template, choose options for ending of words and phrases.

2. The possibility of expanding the information base of the dictionary in accordance with the specific needs of the user, the “flexibility” of the dictionary, its “adjustability” to the user. This is especially important when the dictionary is used by native speakers of languages that are structurally different from Russian. So, for example, being a traditional means of perfectivization, the Russian prefix does not always “fit” into the grammatical system of the Turkish language, which creates difficulties in expressing the meanings of terminological combinations with verbal prefix derivatives when translating them from Russian into Turkish.

3. The possibility of relying on the national scientific base of the discipline under study, the replenishment of the dictionary in accordance with the identified subject gaps. For example, Russian phraseology as a science has a much greater degree of development and a more clearly defined structure than Turkish phraseology, therefore, when forming a terminology dictionary for linguistics and philology, it is important to take into account the absence of separate positions (phenomena) in the Turkish national tradition.

4. Ability to include adapted text materials and integration with training courses in the language of the specialty. In this case, we are talking about the fact that many educational and reference educational resources, being disconnected from the real educational process, lose their relevance. An electronic terminology dictionary allows you to create transitions “term - exercise - text”, thus forming educational and reference clusters for each discipline.

With this approach, the electronic terminology dictionary is “personalized” as much as possible, becomes a constantly replenished and updated source of information, and therefore practically does not lose its relevance [19, 20].

4 Discussion

The main task of the educational terminology dictionary is the systematization of subject knowledge, its presentation in the most convenient form for the student of the discipline. In case of a multilingual terminology dictionary, the task is complicated by the need to take into account such factor as the national scientific school. We mean not only and not so much the scientific base that prevails in a particular country, but the ways of describing it.
The opinion of foreign students that the term systems of all sciences are international is often deeply erroneous and encounters resistance from the “host” language. This applies not only to the humanitarian sphere, but also to such sciences as biology, physics, and astronomy. For example, in biology, the layer of proper Russian terminology is very large, and reading texts in the specialty causes serious difficulties for foreigners. Derivative terms such as надцарство (Domain), подцарство (Subkingdom), надотдел / надраздел (Superdivisio), подотдел / подраздел (Subdivisio), надтип (Superphylum), подтип (Subphylum), надкласс (Superclassis), подкласс (Subclassis), надотряд (Superordo), подотряд (Subordo), отряд / порядок (Ordo), надсемейство (Suprafamilia), подсемейство (Subfamilia, Subfamily), доклеточные, доядерные (Subfamilia, Subfamily) are poorly identified by foreigners in both printed and spoken text.

In physics, a fairly large number of terms are derivatives of verbs (or have verbs in their composition) with an “obscure”, from the point of view of a foreigner, composition: сила трения, трение качения, сила трения качения, сила давления, сила земного тяготения, ускорение свободного. Some of these units contain derivatives of prefixed verbs, which makes it especially difficult for Turkic-speaking students to master them due to the lack of prefixes in Turkic languages, for example сила натяжения, сила притяжения, сила напряжения, сила подъема.

In the course of the experiment, carried out in stages in groups of foreign students studying at different faculties and having a confirmed level of Russian language proficiency not lower than B1, we found that the coefficient of recognition of terminological units in spoken speech in this group of words was low. A low coefficient was given by units of the biological term system (Kt = 0.12), physical term system (Kt = 0.19), economics (Kt = 0.22). The range of recognition of terms in spoken speech in all analyzed disciplines varied in the range Kt = 0.12 - 0.56. The recognition coefficient in the printed text turned out to be expectedly higher, but it cannot be considered sufficient for obtaining professional education in Russian: Kt = 0.23 - 0.78.

These examples are another confirmation that the terminology dictionary accompanying the study of the language of the specialty is an important tool for introducing subject knowledge and it needs to be given special attention to in the educational process. The work on compiling a terminology dictionary should be carried out taking into account such principles as:

1) principle of optimal minimization of terminological material, which involves the automated formation of terminological minimums for each subject area in accordance with the current training programs for foreign citizens;

2) formal lexical principle, which involves the selection and systematization of the selected terminological units at the level of a word and a phrase;

3) structural-semantic principle, which involves the selection and systematization of selected terminological units at the word level;

4) principle of historical background of the formation of each specific terminological system.

We also note that the multimedia component of the dictionary will help to make the process of perception of the term by a foreigner more accurate and complete. Many researchers study computer lexicography in terms of artificial intelligence problems [21, 22].

5 Conclusion

Thus, a complete and accurate understanding of the meaning of a term by a student cannot be achieved without the help of an appropriate terminology dictionary that offers various
ways of semantization. At present, there is no resource in which all the terminological minimums of special disciplines would be brought into a single system. This gap can be filled by an electronic terminology dictionary, the search system of which would allow: 1) to present terminological units in structural, semantic and functional aspects; 2) show them as constituent elements of the termosphere; 3) combine the information and training potential of electronic educational resources on one platform. Such a resource will allow structuring and accumulating information relevant to several areas of knowledge and making a semantic search for data in information storage and networks. In practice, such a resource will help a foreign user (student) to master general educational programs in Russian.

References


The role of weapons in the life of the Khanty as a subject of interdisciplinary analysis

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Abstract. A weapon as an element of the life of the Khanty is an object that combines both the sphere of everyday life and the inner spiritual culture of the people. It was an essential attribute of hunting, preparing food for future use, cooking and other traditional crafts. This work is devoted to revealing the role of weapons in the life of the Khanty of the Khanty-Mansi Autonomous Okrug-Yugra through the prism of four enlarged humanitarian branches of science: philology, history, cultural studies and law. The analysis included the following methods: descriptive, contextual and continuous sampling methods (in philology); the retrospective and analytical approach to data processing (in the historical and cultural block); statistical and sociological methods (in jurisprudence). The novelty of the work lies in the interdisciplinary analysis of the role of weapons in the life of the Khanty, which will reveal the deep aspects of the application and use of weapons by the Khanty ethnic group, which previously used to be a subject of scientific analysis within only one scientific field. As a result of the analysis, the following aspects were studied: lexemes, paremias and other folklore material with translation; archaeological and ethnographic data; information about the objects of everyday culture in the worldview of the ethnic group; customary rules, reflecting the spiritual culture of the Khanty and simultaneously their everyday life associated with weapons. The authors also analyzed the modern legislation regulating the issues of possession of weapons and law enforcement practice in relation to indigenous representatives, related to holding them responsible for improper weapons handling.

Keywords: Khanty, weapons, everyday objects responsibility

1 Introduction

A weapon in the life of the indigenous peoples of the North (IPN) is of paramount importance, since it serves as an object of everyday life, crafts, national costume and rituals, it is used to get food, defend oneself from wild animals, cook food and make

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household items, build a home, perform rituals. It is an integral element of survival in the extreme conditions of the Far North and the territories equated to it, where the Ob-Ugrians (Khanty and Mansi) live.

A weapon, which has been an everyday household item for thousands of years, are now the object of attention of law enforcement agencies. This is due to the fact that the same rules apply to indigenous peoples as if they lived in an urbanized society and did not lead an original way of life, did not engage in traditional types of crafts. As a result, a certain conflict arises between the traditional way of life, the customs of weapons handling and modern rules of administrative and criminal law.

The novelty of the study lies in the application of an interdisciplinary approach, which will reveal deep aspects in the analysis of the issue of application and use of weapons by the Khanty, which was previously a subject of scientific analysis within only one subject field without the possibility of solving pragmatic aspects.

Hypothesis: It is assumed that the use of weapons by the Khanty ethnic group can become the object of a comprehensive interdisciplinary analysis, which will give a more detailed and in-depth scientific study, allowing to obtain more in-depth and multifaceted results.

The research purpose is to conduct a comprehensive interdisciplinary analysis of the data related to the role of weapons in the life of the Khanty of the Khanty-Mansi Autonomous Okrug-Yugra as a subject of culture, history, language, folklore and law.

- To achieve the purpose, it is necessary to solve the following objectives:
  - To identify and describe the vocabulary associated with the main types of weapons in the Khanty language and folklore, to make a selection of paremias, in which names of weapons are used.
  - To determine the place of weapons in the cultural code of the Khanty, understanding it both as an element of crafts and an element of spirituality, reflecting the peculiarities of world perception.
  - To identify and describe the facts and rules of law, according to which the indigenous peoples of the North were held accountable for the use of weapons.
  - To summarize the data obtained and formulate practical recommendations for eliminating possible contradictions between the use of weapons in the traditional way of life of the Khanty population of the Khanty-Mansi Autonomous Okrug-Yugra and the requirements of the current legislation for its civil circulation.

The theoretical basis of this study included the works of Russian and foreign researchers in ethnography, philology, history and law.

2 Methods

To perform the philological block of the study, the descriptive, contextological and continuous sampling methods were used. The choice of these methods is determined by the set objectives. In this regard, it was necessary to use the description as the main method, the contextual method was used to demonstrate the material in Russian, and the continuous sampling method was used to identify the actual material from the general textual language base. In the historical block, a retrospective and analytical approach to data processing was used. In jurisprudence, a statistical method was used to quantify the administrative and criminal cases initiated against the IPN in the field of weapons trafficking, and a sociological method was used to analyze criminal cases and cases of administrative offenses in order to identify characteristic features of the motive for committing illegal acts by representatives of the IPN in the field of weapons trafficking.

Dictionaries, paremias (proverbs and sayings) and other folklore data, legal acts, judicial and other law enforcement practice, etc. were used as sources.
3 Results

These diagrams show the enlarged subject fields that formed the basis of the interdisciplinary research (Fig. 1) and the reviewed factual material, which served as the material for the complex humanitarian analysis carried out on the declared subject of this study (Fig. 2).

![Fig. 1. Enlarged subject fields of sciences.](image)

![Fig. 2. Indicators.](image)

4 Discussion

A weapon as an object that reflects the spiritual culture of the Khanty, and simultaneously their everyday life is represented by a fairly rich linguistic material.

The most ancient layer of vocabulary is the words that reflect traditional crafts – arrows, bow, knife, and sword. To date, there are no separate works devoted directly to weapons. However, these items are mentioned or described in the works of linguists when analyzing trade vocabulary [1, 2], in dictionaries [3], in ethnographic publications about the Ostyaks [4, 5], folklore sources [6]. Special mention should be made to the works of foreign researchers, who were among the first to record the language and culture of the Khanty ethnic group – A. Reguly (1840, 1842) [7], P. Hunfalvy (1875) [8], A. Ahlqvist (1999) [9], and others.
Thus, a bow is a more ancient type of weapon in the linguistic material; it allows showing all the diversity of its functioning in language, culture and craft. The monograph by V.N. Solovar reflects several of its names and semantic classifications, for example: by appearance, manufacturing method, hunting place, material and even the name depending on the type of animals hunted, for example: kūřaj woj joʃal ‘crossbow to hunt elk’s’, ‘bow (weapon)’ [3], oʃ joʃal ‘bow placed in the hunting fence’, xor joʃal ‘crossbow, placed in the swamp’ [10].

A gun is a more modern type of weapon. The Khanty language has a rich lexical range, demonstrating a diverse number of its names, Puškan ‘gun’, Kăt tüɾęp puškan ‘shotgun’, Sõp ‘cherka’, Marëšøjśtı ut ‘thundering thing’ (gun) [3].

Through the prism of history and cultural studies, a weapon as an element of the life of the Khanty is a special object that combines the spheres of everyday life and the spiritual culture of the people. Weapons in the life of these peoples are also of sacred significance. There is a custom that prohibits the use of someone else’s bow. A woman is forbidden to step over the hunter’s tools – these objects are so humanized.

The traditional culture of the Khanty is characterized by an integral world perception. Each of its elements obeys the same laws, regardless of which part – the upper, middle or lower one – of the single world this element is located in. Hence – the spiritualization of weapons (animism), giving weapons the rank of a totem that protects the community from bad luck. Since the laws of being are the same for the three layers of the world, all these laws apply to weapons: for example, each object is “alive”, which allows talking about the existence of a soul in a weapon (animism); the existence of a soul in an object allows it to be used as a magical protector (totemism) and an element of magical rituals.

A firearm belongs to the period of the conquest of the Siberian Khanate by the Cossacks at the end of the XVI century and the annexation of Yugra to the Muscovite state. A gun began to penetrate the culture of the Khanty no later than the first half of the XVII century, when the Khanty began to barter or buy it from Russian merchants [11]. At the beginning of the XX century, flintlocks were replaced by centerfire guns. Guns were used to hunt for meat (meat trade) and fur (fur trade).

A gun, unlike a bow, belongs to the category of firearms and, accordingly, in modern reality this object can be studied in the framework of a language, folklore, culture and history, as well as in modern law. In this regard, nowadays, the unique perception of weapons by the Khanty is subject to a significant influence of positive law. From the standpoint of modern legislation, weapons as a complex technical and social phenomenon, due to their special properties that pose a threat to security and other protected interests of society, are considered as an object of legal relations, the regulation of which is carried out in a special legal regime. The circulation of cold steel and firearms, in contrast to the generally permissible nature of the regulation of property rights regarding the possession, use and disposal of other things, has many restrictions and prohibitions established by Federal Law of December 13, 1996 No. 150-FZ “On Weapons” [12] and other regulations that equally apply to all participants in these legal relations, including the indigenous peoples of the North, who do not have any privileges in this area.

Meanwhile, the state, protecting the traditional way of life [13–17], as a historically established way of life support, traditional crafts, endowed the indigenous peoples of the North with special rights in the field of environmental management. Such ways of life support and crafts traditionally include hunting, an integral attribute of which is a weapon. The point is that in the conditions of a nomadic lifestyle, it is extremely difficult to comply with all the requirements for handling weapons that are strictly regulated in the legislation. In law enforcement practice, representatives of the IPN are most often held accountable for non-compliance with the rules establishing the terms of registration (re-registration), rules for storage, carrying firearms, etc. (Articles 20.8, 20.11, 20.12 of the Code of
Administrative Offenses of the Russian Federation, Articles 222, 222.1 of the Criminal Code of the Russian Federation) which, in fact, are often formal offenses.

A case typical for law enforcement practice is that of a citizen K., who was brought to administrative responsibility under Part 6 of Article 20.8 of the Code of Administrative Offenses of the Russian Federation for illegal possession of a civilian smooth-bore firearm, since the previously issued firearm permit had expired a few days before this offense was identified. It follows from the case materials that K. is a representative of the IPN (his father is Khanty, his mother is Nenets), he lives in the family lands with a large family. Explaining the reasons why he did not re-register the weapon, K. indicated that he “could not leave the family lands”. The court took into account that hunting is the main legal source of livelihood for K. and did not apply in this case the sanction in the form of weapon confiscation, confiding itself to imposing a penalty in the form of a fine [18].

Another typical situation is cases of prosecution under Part 4 of Article 20.8 of the Code of Administrative Offenses of the Russian Federation for violating the rules for storing weapons, when during special raids; law enforcement officers reveal the facts of storing firearms in a raw-hide tent [19].

A common situation is when, during the inspection of residential and household buildings within the boundaries of family lands, police officers find uncontrollably stored bullets and gunpowder, an object of offenses, liability for which is provided for in Articles 222 and 222.1 of the Criminal Code of the Russian Federation. In such cases, a criminal case is initiated against those persons who are the owners of family lands [20, 21]. However, it is not taken into account that such lodges and other hunting buildings, are usually freely available for other hunters to visit, and often such items are left by them in accordance with the established tradition, as a kind of “gratitude” for their use of this building as a temporary shelter, which becomes known to the owners of family lands only from law enforcement officers who find such evidence. In addition, gunpowder is often used by the indigenous people for household purposes not related to hunting (smoking, lighting fires, etc.) [20, 21].

The qualification of the specified offenses is carried out upon the established constituent elements, and the analysis and assessment of the public danger of these offenses, the degree of guilt of their subjects, the consequences in the form of harm to the object of legal protection (the state of public security) take place formally [21]. It is not taken into account that such offences are committed in family lands of the IPN, usually located in deserted and hard-to-reach places, which significantly reduces the degree of threat to public security. These offenses are not socially reprehensible, and from early childhood, in conditions of constant possession of weapons, representatives of the IPN acquire excellent skills in their use, which significantly reduces the risk of accidents when handling weapons.

It is also not taken into account that, as a matter of law, the above unlawful acts can only be qualified if there is direct intent (a person who committed the unlawful act understood the social danger of his action or inaction, he foresaw the inevitability or possibility of negative consequences and consciously wanted their occurrence). However, these persons do not usually have any criminal intent. Once in the sphere of legal proceedings, not even realizing what their fault is, due to the peculiarities of their mentality and unique spiritual culture, they seek to leave it as soon as possible, including by unjustified admission of their guilt in a formal offense.

In this regard, the authors assume that knowledge and understanding of the ethical norms and established traditions of their life can become an important component in regulating the relationship between the IPN and the state and, first of all, law enforcement agencies. Taking into account the regulation of the economic life of the northern peoples through traditions and customs that have developed over the centuries, will allow law
enforcement agencies to make decisions in various conflict situations in a more competent and balanced way.

However, nothing currently prevents one from taking into account customary rules in the course of making judicial decisions, especially since there is a state sanction for this. Thus, Article 14 of the Federal Law “On Guarantees of the Rights of Indigenous Minorities of the Russian Federation” gives the right, when considering cases against minorities in courts, to take into account their traditions and customs that do not contradict the current legislation. However, such a procedure runs into a very simple, but almost insurmountable obstacle: the lack of a single document describing such rules [22]. That is why it is necessary to form a code of customs and traditions, as well as recommendations for its application, which could become a document to be used as a recommendation when making decisions by law enforcement agencies.

5 Conclusion

At the end of the comprehensive humanitarian analysis, it should be noted that it was possible to identify rich lexical material, indicating the active use of weapons by the Khanty ethnic group in everyday life. In addition, a language range of names, definitions, actions that characterize the frequency of use of lexemes and the whole variety of sector-specific vocabulary is widely represented. It should be noted that the most significant objects and phenomena that have existed in the culture of the people for centuries and are reflected in its worldview are recorded in folklore.

It is worth emphasizing that throughout history, weapons have been a subject of everyday culture, which was used daily as a vital tool for farming and hunting, and in no case stood out in a separate cluster, rather than it is customary to do today, when the use and carrying of weapons can have a completely different perception, interpretation and attitude, since it is about an offense.

It has also been established that firearms began to penetrate the culture of the Khanty no later than the first half of the XVII century, when the Ostyaks began to barter or buy them from Russian merchants. In modern reality, when many representatives of the Khanty continue to lead a traditional way of life and livelihoods, a gun, classified as a type of firearm, has an original purpose and, therefore, is invariably perceived, like many millennia ago, as an everyday object, which cannot be identified in any way with something illegal and, even more, forbidden.

In this context, in order to reduce conflicts between representatives of indigenous peoples and law enforcement agencies, it is proposed to create a single document describing their customs and traditions, including those related to the role of weapons in their lives, as well as recommendations for decision-making by law enforcement agencies in relation to indigenous peoples when holding them legally liable.

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Situational tasks as a way of implementing metadisciplinarity at literature lessons

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Abstract. The need to review the content of subject-specific learning comes to the fore in terms of implementation of the Federal educational standard of secondary general education, in accordance with the need to form the innovative educational space and introduce new approaches (system-action, competence-based, personality-oriented) in the process of teaching literature. The article proposes a description of situational tasks as a way of forming a systematic learning activity, describes the principles of their compilation and solving methodology in accordance with Bloom’s taxonomy. When compiling situational tasks, the principle of integration of various types of arts was implemented, which matches the concept of metasubject learning both at the substantive level (content of tasks) and the technological level (dialogue learning technologies)? The proposed tasks can be efficiently used in the classroom (basic level) and in complementary education (elective courses). Comprehensive tasks are an effective tool both for the formation of subject-specific and metasubject competencies, and for assessing the level of their formation. Productive methods and technologies (technology of thoughtful reading, information modelling methods, dialogue discussion, work in pairs and groups) contribute to the realisation of innovative approaches in learning. The practice of situational tasks in teaching literature provides not only theoretical knowledge, but also practical skills in working with different sources, analysing different kinds of texts and establishing collaboration and dialogue with the classmates and the teacher.

Keywords: situational tasks, competence-based approach, metasubject competencies

1 Introduction

The new goals of literature education, as well as system-action and competence-based approaches have defined the new content of subject learning and the means to assess the level of formation of subject-specific and metasubject competencies in secondary school students. According to the Federal educational standard of secondary general education, modern

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education should be based on the principle of metadisciplinarity. Its main aim is to develop and educate the intellectual, free, mobile, moral and creative personality. Alongside with the personality-based and subject-specific requirements, the Federal educational standard establishes metasubject requirements for students’ level in mastering the basic general education programme. These requirements are defined by the standard in terms of students’ acquisition of intersubject concepts and universal learning activities. The indicator of compliance with the metasubject requirements is represented by students’ readiness to use them in learning, cognitive and social practice, their ability to plan and implement learning activities independently [1].

The new social challenges have defined high requirements also for methodological schooling of a future teacher. A university graduate should be able to work under the conditions of new federal standards, be aware of innovations that are in demand in the practice of the modern school. Today, the teaching practice widely includes situational tasks as an effective means of forming and evaluating the universal learning activities. The specificity of situational tasks (ST) is that they are practice-oriented and require specific subject knowledge. Often students need to integrate knowledge of several subjects in order to solve a situational task. ST is based on a problem question that should arouse students’ personal interest. These tasks allow a student to master intellectual operations in a sequential way, when working with information. According to B. Bloom’s taxonomy of tasks, six categories of goals are distinguished, with more fractional internal division:

1. knowledge (of concrete material, terminology, facts, definitions, criteria, etc.);
2. understanding (explanation, interpretation, extrapolation);
3. application;
4. analysis (of relationships, construction principles);
5. synthesis (development of a plan and possible system of actions, forming a system of abstract relations);  
6. evaluation (judgement based on available data, judgement based on external criteria).

Based on B. Bloom’s taxonomy of tasks, L.S. Ilyushin created a “Task Designer” – a complex didactic method which makes it possible to create one’s own “didactic text” and, using it, to solve concrete pedagogical tasks related to designing, supporting and evaluating students’ achievements. The authors, when referring to “didactic text”, mean detailed description of a learning task aimed at achievement of different groups of educational outcomes by students (“subject”, “metasubject” and “personal”) [2]. Thus, the proposed tool can be attributed to the means intended to realise the “second-generation Federal Educational Standard” which is specifically grounded on the competence-based approach and the concept of formation of universal learning activities. When using the “designer”, it is necessary to rely on a number of concepts:

- the problem (from the Greek ‘problema’), in a broad sense – a complex theoretical or practical question that needs to be studied and resolved;
- the task is a substantiated instruction to perform a due action (a set or sequence of actions). The task includes: requirements (goal), conditions (known) and a sought-for value (unknown), formulated in a question or a task. Solving a task means a search and identification of unknown elements through known ones. Solving a task means achieving a specific, desired result. A task is often phrased as an assignment.

The model of a situational task includes the following elements:
- name of task
- personally significant cognitive question
- information on this question presented in a different form (text, table, chart, statistics, etc.)
- assignments for working with this information [3].

The goal: to present a situational task as a way to form metasubject competencies.
The objectives:
- to analyse the principles used to prepare situational tasks;
- to identify the didactic potential of situational tasks for the formation of metasubject competencies;
- to develop the content of situational tasks on the basis of the integrative approach.

2 Methods

The technology for solving a situational task includes such methods as comparative analysis, verbal drawing, problem-speaking utterance, group discussion, research work.

3 Results

Here is an example of a situational task.

Description
Situation task on the subject “Nature and War”.

Task 1: Read the below definitions of the words “nature” and “war”. Write your own definition based on them and specify the antithesis contained in the meaning of the words:

**NATURE**, of nature, feminine
1. All that exists in the Universe, organic and inorganic world. Dead nature (inorganic world: no plants, no animals). Living nature (organic world).
2. The whole inorganic and organic world as opposed to man. Environmental protection. Interrelation of man and nature.
3. Places outside cities (fields, forests, mountains, water areas). To admire nature. In the bosom of nature. To go out into nature (vernacular) (S I. Ozhegov’s Dictionary).

**NATURE** – the material world of the Universe, in fact – the basic object of study of natural sciences.

In everyday life the word “nature” is often used to mean natural environment (everything that is not created by man) (Wikipedia)

**WAR** – organised armed struggle between states (groups of states), classes or nations (peoples) (Ozhegov’s Dictionary)

**WAR** – a conflict between religious and political entities – states, tribes, political groups, etc. – that takes place in the form of armed confrontation, military (combat) operations between their armed forces (Wikipedia.)

Task 2: Read the excerpts from the works of the 19th and 20th century writers about nature. What associations do these pictures of nature evoke in you? [4].

**I.S. Turgenev. Bezhin Meadow**
The dark unclouded sky stood, inconceivably immense, triumphant, above us in all its mysterious majesty. One felt a sweet oppression at one’s heart, breathing in that peculiar, overpowering, yet fresh fragrance—the fragrance of a summer night in Russia. Scarcely a sound was to be heard around.... Only at times, in the river near, the sudden splash of a big fish leaping, and the faint rustle of a reed on the bank, swaying lightly as the ripples reached it ... the fires alone kept up a subdued crackling.

**Guy de Maupassant. Moonlight**
Translated by N. Nemchinova

And, endowed as Abbot Marignan was with an exalted spirit – such as those poetical dreamers the Fathers of the Church might had – he was immediately distracted, moved by the glorious and serene beauty of the pale night.
In his little garden, all bathed in soft light, the ordered ranks of his fruit trees traced on the path the shadows of their slender limbs lightly veiled with foliage, while the giant honeysuckle clinging to the wall of the house exhaled a delicious, sugary breath and floated through the calm air like a ghostly soul.

Abbot was breathing deeply, drinking the air as a drunkard drinks wine, and he took a few slow, dreaming, wondering steps, almost forgetting his niece.

When he reached the open country, he stopped to contemplate the fields all flooded with tender light, bathed in delicate and languid charm that calm nights have.

V. Ar-Sergi. Count, Count, Cuckoo

The text is quoted after V. Ar-Sergi. Count, Count, Cuckoo (translated by A. Demyanov) // Luch. 5-6’1997. P. 36-55.

My God, it’s so nice outside! It’s a somnolent fairy tale, so beautiful. And an unknown melody intertwines with the velvety chill of the night – sweetly, softly. It moves deeply and draws your heart as if into an abyss – not a frightening, but alluring depth. And you feel like weeping with soul-relieving tears: the sound of the accordion makes you jump up and go far away, get lost in yourself, as if in a thick forest... Walking onward without measure and with no thought, shivering barefoot, chilled with dew and feeling almost incorporeal.

What is that strange voice in the night? I am trying to understand the chords that woke me up from sleep, but it makes no sense. Like incorporeal river spirits, they rise from the river currents and, bumping against the weeping willow branches dangling towards the river, soar upwards, to the distant stars known only to them... And only after being impregnated with the starlight, they return to me – sounds, frets, chords... And, from me now, they are spilling around with a mournful, gentle twangle...

The melody swirls all around, washing the thoughts pleasingly like a river current laves the body. It charms one, bewitches the night itself and the two-horned moon. I feel myself to be a part of this music, its resonant, lamenting and rapturous note. A millionth, a billionth particle of it, a crumb of its wealth and its truth about anything and everything. And the silent universe thoughtfully heeds to the languid voice of the night-time harmony.... (description of “August” by P.I. Tchaikovsky).

Task 2. What colour, what melody do you associate the nature pictures with?

Fig. 1. Paintings examples.

The students are offered to listen to the music: “The Seasons” by P.I. Tchaikovsky and A. Vivaldi.

**Task 3. Read Prince Andrew’s and Clérambault’s reflections on the war. Mark the key words. Make a cluster.**

War is not courtesy but the most horrible thing in life; and we ought to understand that and not play at war. We ought to accept this terrible necessity sternly and seriously. It all lies in that: get rid of falsehood and let war be war and not a game. As it is now, war is the favourite pastime of the idle and frivolous. The military calling is the most highly honoured. But what is war? What is needed for success in warfare? What are the habits of the military? The aim of war is murder; the methods of war are spying, treachery and their encouragement, the ruin of country’s inhabitants, robbing them or stealing to provision the army, and fraud and falsehood termed military craft; the habits of the military class are the absence of freedom, that is, discipline, idleness, ignorance, cruelty, debauchery and drunkenness. And in spite of all this it is the highest class, respected by everyone. All the kings, except the Chinese, wear military uniforms, and he who kills most people receives the highest rewards... They meet, as we shall meet tomorrow, to murder one another; they kill and maim tens of thousands, and then have thanksgiving services for having killed so many people (they even exaggerate the number), and they announce a victory, supposing that the more people they have killed the greater their achievement. How does God above look at them and hear them? – exclaimed Prince Andrew in a shrill, piercing voice. – Ah, my friend, it has of late become hard for me to live. I see that I have begun to understand too much.

**R. Rolland, Clerambault**

As Clerambault went away he was amused by the consolation he had received from her whom he had gone to console. He realised how slight our suffering must appear in the eyes of indifferent Nature. All its concern is for the bloom of the coming spring. Let the dead leaves fall now to the ground, the tree will grow all the better and put forth fresh foliage in due season.... Lovely, beloved Spring!

Those who can never bloom again find you very cruel, gentle Spring! Those who have lost all that they loved, their hopes, their strength, their youth – everything that made life worth living to them....
The world was full of mutilated bodies and souls; some bitterly lamenting their lost happiness, and some, yet more miserable, sorrowing for what had been denied them, the cup dashed from their lips, in the full bloom of love, and of their twenty years.

**Task 4:** Match the verbal image with the pictorial one. Describe the painting by V.V. Vereshchagin “The Apotheosis of War” [5].

![Fig. 2. Painting to describe.](image)

**Task 5:** Dostoevsky once posed a question: is there any justification for peace, our happiness and even eternal harmony if an innocent child’s tear is shed in its name? He answered: this tear will not justify any progress, any revolution, any war. It will outweigh everything. Do you agree with these words? Write an essay.


...The element of water has a remarkable effect on the human soul, it removes its soot and smoke, restores its original softness. There, away from the noise of the city, good people become doubly precious because you share neither yourself nor them, and it is easy to be yourself sincerely and permanently...

The solution of a situation task can be expressed in a reflexive-nature essay/composition.

### 4 Discussion

ST (situational tasks) solution contributes to the formation of regulatory competences (self-organisation of activity), as well as communicative (ability to explain phenomena of reality), personality-oriented (development of ability to navigate in the world of values, orientation in the key problems of modern life), cognitive (increasing the functional literacy level) [7].

ST handling skills are aimed at achieving metasubject outcomes, i.e. educational results that go beyond the disciplinary subject and are applicable in different types of activity. In ST solving, the roles of educational process participants change fundamentally: the teacher and the student act as equal partners who learn to solve problems together. At the same time, the teacher’s function is organisational and advisory, which contributes to the formation of educational and personal dialogue [8].

### 5 Conclusion

The new goals of education, innovative approaches and strategies for realising these goals require the pedagogue’s new mentality [9, 10] and a high level of methodological competence in applying educational technologies focused on formation of creative approach to solving educational tasks [11, 12]. The metadisciplinary content of situational tasks, the need for integrating subject-specific knowledge for their solution [13, 14] is a necessary condition for the formation and control of students’ high-level metasubject competencies [15].
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Conclusion

Discussion

...The element of water has a remarkable effect on the human soul, it removes its soot and
Task 6:
Task
The world was full of mutilated bodies and souls; some bitterly lamenting their lost
situational tasks)

Vereshchagin "The Apotheosis of War
Painting to describe

What can cure a sick soul? Analyse a fragment from A. Demyanov's work "The
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Development of student autonomy through the case method in digital learning foreign languages

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Abstract. The article is devoted to the study of educational autonomy and the case study method as an effective means of its formation in the context of digital learning. The authors consider the definitions of student autonomy from the standpoint of philosophy, psychology, pedagogy, linguodidactics; they differentiate between the concepts of "educational autonomy" and "independent work" and substantiate the feasibility of developing the autonomy of adult learners through case technology in the study of a foreign language. The point of the method is in the fact that the process of acquiring knowledge takes place as a result of students' active autonomous activity on solving the given problem. An example of a case for developing the autonomy of learners of English is given. The case has been made up by teachers of the Department of Foreign Languages of Astrakhan State University and tested and widely used in the online course of English in 2020-2021.

Keywords: autonomy, digital learning, case-method, autonomous learner.

1. Introduction

Educational autonomy is studied at the confluence of teaching methodology and psychology. In academic books we come across synonyms “autonomy”, “learner autonomy”, “learner independence”, student autonomy”. Though the term has been used for a while, it is currently of great interest due to modern trends in education, its digitalization being in priority.

Digitalized education presupposes interaction between teachers and students in digital learning environment. Among primary resources of the digital educational environment are digital techniques, digital tools (software for educational process management) and digital footprints (presentations, blogs, on-line educational discussions, video facts, etc.) as the results of learning and professional activity in digital format. Main framework components of digital education are digital educational environment, digital tools for the educational process arrangement or knowledge assessment, digital technologies for teaching process organization, digital content, digital technologies of interaction, digital resources [1]. Digitalization of education is supposed to enable students to construct an effective individual educational trajectory and to manage personal results, as well as to overcome
traditional teaching barriers (speed of the program acquisition, the choice of the forms and instruction methods) [2].

In this context students’ individual work is understood in the following way: it is moved to the open informational educational environment, and its objective becomes a construction of new, individual knowledge and its object-matter is large information files. Now the success of the individual work depends on the students’ capacity for the research and informational activity. At the same time individual work requires self-management skills: planning and workplace arrangement skills, tools choice and results monitoring.

Taking into consideration everything said above, it is certain that the role of the learner's autonomy in the digital educational environment has grown. This article considers various definitions of the term “autonomy” from the perspective of philosophy, psychology and pedagogy, as well as degrees, stages, components of autonomy and its development tools, case method being acknowledged as a higher-priority educational tool for learner's autonomy formation.

2 Definition of the term “learner autonomy” in different scientific contexts

Theoretically, learner autonomy presents a complex concept. With years it has been modified which led to the variety of definitions. Yet, all of them are based on two concepts – independence and responsibility.

The term “educational autonomy” was first used in the field of linguodidactics meaning the ability of the learner to set learning activity goals, define its content and sequence, choose methods and techniques, manage acquisition process, assess the results [3]. L. Dickinson gives a similar definition of a learner autonomy which is a responsibility of a student to learn and to distribute this responsibility in the learning process [4]. D. Little does not limit the definition of the educational autonomy to the student’s responsibility for his/her learning process but widens it defining it as an ability to distance oneself, to take independent decisions and evaluate one’s results critically [5].

In psychology autonomy means a need to manifest a psychological or social and psychological quality which allows a person to display the ability to act independently not withstanding internal and external tenets, to manage natural dependence by means of personal tenets, to make a choice [6]. From the point of view of psychology this term is also defined as a form of personality being, whose integral essence manifests itself in a combination of personal characteristics: independent goal setting, awareness of actual interests, values and beliefs, developed critical competence, responsibility for independent decisions, flexibility and creative thinking and activity. The learner autonomy is not reduced to independence or emancipation but is considered to be a mechanism of a person’s adaptation to constantly changing new conditions [7].

In philosophy autonomy is seen as an essential part of the mechanism of a personality formation, of individualization which presupposes a person’s development as that of an independent, thinking and responsible human being. In a wider sense autonomy is correlated with independence and characterizes highly-organized active and social systems where behavior and function are determined by internal reasons and do not depend on the influence of the eternal surrounding [8].

In pedagogy a learner autonomy is a term belonging to a personality-oriented educational paradigm, its aim is to provide each student with favourable conditions for the development of his/her abilities, inclinations, and for satisfaction of his/her cognitive interests and needs. For instance, autonomy is defined as the ability of a personality to carry out productive educational activity consciously, to evaluate it, to find possibilities of a constructive interaction with individuals engaged in this activity, taking the responsibility
for the process and the output of this activity as the result of a personality self-determination and self-development. In this research autonomy is indirectly related to independence as productive learning activity is defined as a type of a student’s independent creative cognitive activity which is included into a real social and cultural context and is aimed at the creation of a personality significant educational product [9].

A definition of a learner autonomy in course of a foreign language teaching also fits the framework of the personality-oriented educational paradigm: educational autonomy is a personality’s wish and ability to become a responsible participant of the learning process, to perform an independent learning activity and to develop himself/herself in educational and professional directions [10].

A learner’s responsibility is manifested in decision taking at any stage of language learning in the form of independent choice according to personal needs, interests and experience. An autonomous learner’s independence implies management of the learning process, to be exact - the goal setting, its content identification, evaluation of the learning methods and techniques and critical reflection upon the result of mastering a language [11].

An autonomous learner has such abilities as independent goal setting, planning, a choice of methods and forms of work, self-reflection, self-control and self-correction. Besides, an autonomous learner should be responsible for the results of his/her learning activity and be able to transfer them into a new learning context [12].

These is a narrower definition of educational autonomy in pedagogy: it is an intense management of the learning process under responsibility of the learner. Management of the learning process is seen as independent decision taking as for the choice of resources of the learning activity, forms of work, deadlines, control and assessment techniques, and transfer of its results into new learning contexts [13].

An autonomous learner shares his/her responsibility for teacher-assisted learning as they are co-partners in the educational process. The learner can and must choose his/her personal learning trajectory. Thus, the role of a teacher increases and he/she stops being just a knowledge transmitter but becomes a strategist, a consultant, an expert and a partner in communication in a foreign language [14].

Having analyzed different definitions of educational autonomy by many foreign and Russian scientists, we can single out the following main parameters of a learner autonomy in learning activity: ability to take responsible decisions in the course of studying in different learning contexts under certain independence from the teacher ability to carry out learning activity independently; ability to actively and consciously manage this activity, performing self-reflection and accumulating personal experience; ability to perform the functions of a teacher.

Some Russian scientists consider the term “learner autonomy” synonymous to independent work, but, nevertheless, they mark out the difference that in independent work learners decide only on methods of work while in autonomous learning students choose the content of learning as well.

In our research we differentiate between the terms “learner autonomy” and “independent work” after L.V. Trofimova who states that educational autonomy is the basis of independent learning activity, it is the highest degree of self-guidance in a learning process [15]. Besides, we support the opinion that educational autonomy presupposes the choice both of the methods of teaching and the content of learning as opposed to independent work when learners decide on the task fulfillment techniques themselves.

To conclude, definitions of the term “educational autonomy” given by Russian researchers all come down to the following: it is a learner’s ability to carry out learning activity independently and/or take responsibility for its results.

3 Foreign language autonomous learning development
Different levels of autonomous learning are highlighted. They can be classified into limited and complete [16]. Limited autonomy corresponds to an authoritarian pedagogical model, full autonomy corresponds to a student self-oriented model. Other levels of autonomous learning - semi-autonomy and partially dependent autonomy - correlate with socially-oriented and individually-oriented models, respectively [17]. There can also be pointed out low, medium and high levels of autonomous learning development [18].

As for foreign language autonomous learning development, the most important factors influencing its success are a student's motivation and his awareness of the fact that the success of his learning depends on his own learning style: a positively motivated student pays much attention to each task received from the teacher, and this enhances his learning efficiency [19]. A teacher's role is to help students define their own essence, awareness of the surrounding reality, the ability to think and learn [20]. The teacher's activities are the main condition for the foreign language autonomous learning implementation, which consists in designing new teaching programs and teaching aids, a system for monitoring and evaluating the autonomous educational activity of students [21]. The teacher's task is seen, firstly, in providing students with the necessary assistance in autonomous learning development through their training, which can be carried out within the framework of classroom studies in a foreign language, and secondly, in creating conditions conducive to their learning styles in extracurricular independent educational activities. The foreign language autonomous learning student development is facilitated by forming both general educational skills and individual cognitive strategies for learning a foreign language, which are formed with respect to individual learning styles and through the development of metacognitive activity of students in the educational process [22]. S. Yan, writing about the importance of a teacher in terms of educational autonomy, highlights such roles as a facilitator and consultant [23].

As a matter of fact, the development of learner autonomy is influenced by both the teacher and the student; therefore, this process, is multifaceted, that is why the researcher evaluates both participants in the educational process. The teacher's activities are reduced to performing a number of functions: encouraging personal initiative, building student confidence, providing and stimulating choice, recognizing an individual attitude to activities, rationalizing goals and requirements, taking into account their potential and abilities, providing necessary information and feedback. The characteristics of a student that contribute to the development of his autonomy include the following: self-knowledge, absence of self-deception, critical competence, activities based on their true interests, self-control, willpower, the ability to personal transformation, creative thinking and imagination, awareness of personal responsibility for decisions [24].

Thus, both students and teachers, fulfilling their functions, contribute to the development of autonomy on their part, and thanks to this joint activity, the development process is faster and more efficient.

The student's readiness for autonomous learning activity is determined by the components that overlap or vary in the studies of different scientists. Zh.S. Anikina identifies three components of foreign language learning autonomy - psychological, methodological and communicative. The psychological component embraces motivation, reflection, self-control and self-correction. The methodological component includes mastering the methods and techniques of independent activity and self-management of educational activity. The communicative component comes to the learner's ability to discuss emerging issues during the educational process with the teacher and fellow students [25]. N.V. Karzhanova distinguishes the same components, but there is some slight difference between them. So, the psychological component, along with motivation, includes the attitude to this activity, intellectual abilities and capabilities, volitional potential and
self-regulation. The communicative component corresponds to the learner's communicative competence. The methodological component, along with the previously mentioned components, contains an extra ungraded learning activity as well as awareness of its implementation. Depending on the formation of each component, three degrees of a student's readiness for the learning autonomy are described: 1) imitative readiness, 2) reproductive readiness, 3) independent readiness. The first degree of readiness manifests itself in external motivation, a rather low level of self-regulation, in imitation as a form of mastering actions, namely, in meaningful imitation of the teacher's actions, performing tasks and exercises under the teacher's control. The indicators of the second degree of readiness are the predominance of external motivation, the average level of self-regulation, independent reproduction of the technique or method by the student, learned as a result of joint work with the teacher, further use of the learned technique in similar conditions). The third degree of readiness is mainly shown in internal motivation, a high level of self-regulation, the ability to independently perform both relative speech and speech exercises, the use of a learned technique or method in completely new activity [26, p. 118-122].

E.A. Tsyvkunova describes the following components of educational autonomy: basic, psychological and activity. The basic component embraces metacognitive, cognitive, compensatory and training skills, which enable the student to carry out motivated planning of his independent educational activity. The psychological component contains self-regulation, motivation, responsibility, creativity and curiosity. The activity component includes control over the educational process, self-initiation, self-management, and cognitive thinking skills [27].

It is also possible to distinguish four components: basic/technological, activity, personal and constructive. Basic / technological component embraces mastery of strategies and techniques of educational activities; an activity component means self-initiation of educational activity, self-management of educational activity, a critical analysis of the process of educational activity, self-assessment and self-correction of educational activity; the personal component is determined to those strategies that encourage students to be thoughtful in their decision making and to reflect on the outcomes of their decisions, independence, flexibility, autonomy, etc.; the constructive component includes the adaptability of learning activities to various learning situations, freedom to creatively transform learning activities, the accumulation of individual learning experience and the transfer of effective experience to a new learning context, interaction and cooperation in solving learning problems, the transfer of individual learning experience [28].

Autonomy development encompasses several stages: needs identification; goal setting; planning training sessions; selection of resources and learning strategies; practice; monitoring progress; evaluation and revision [29]. A dynamic model of learner autonomy includes three stages: 1) the preparatory level (familiarization stage), 2) the level of involvement (training stage) and 3) the level of direct participation (practice stage) [30].

To develop learner autonomy, it is necessary to apply certain educational tools: the reflexive, problem, contextual learning, the computer method and the method of projects, including web quests [31]. H. Reinders distinguishes between specialized and general approaches to developing learner's autonomy. He includes general training for students, teaching strategies, self-assessment centers, counseling students on issues related to language learning. Among the specialized approaches he mentions portfolio, online learning environment, tandem learning [32, p. 40-55]. The specified methods are viewed active. These include role-playing, computer-assisted learning (Computer-aided language learning (CALL), learning a foreign language using text corpora, learning using mobile means - Mobile assisted language learning (MALL) and the case method).
The above mentioned educational tools contribute to the development of learner’s autonomy, namely, goal-setting, the choice of resources and the ability to take responsibility. This is due to the fact that all methods are active, stimulate cognitive activity, reflection and the choice of educational materials.

4 Case method as a means of developing student autonomy in digital learning of foreign languages

Case method is a relatively new technique in teaching foreign languages which can be implemented in digital (distance) learning. This method is widely used in task-based learning that has been introduced in the practice of teaching foreign languages for a decade. It presupposes that getting knowledge is not enough and it is important to form and develop practical linguistic and communicative skills. Implementing the concepts of this approach leads to task-oriented, deliberate communication. Cases or problem situations are considered to be effective and relevant in digital linguistic education.

A case presents a description of a certain problem situation in the form of a text (story) in a foreign language which is aimed at learning how to deal with information in a foreign language, to formulate a problem and to find possible ways to cope with the problem according to the given criteria. Thus, students get knowledge, master professional skills and develop their cognitive competence [33].

As a rule, the following educational situations are defined:
- illustrative cases that are supposed to teach the algorithm of decision making on the base of a practical example;
- cases aimed at formulating a problem that describe the situation at a definite period of time and have clearly defined problems;
- applied tasks describing a certain situation, asking to find possible ways out. The aim of such cases is decision making [34].

The situational character of case method which presupposes analyzing and discussing real and conditionally real situations, is especially relevant on an advanced level of learning a language. It allows to find typical features of similar situations and to analyze them drawing from analogies.

In learning a foreign language case method activates communication and adds to developing relevant skills and competences as it is based on discussing the problem in a team and making up a plan of activities for solving the problem in a practical way. In the education of intending teachers the method helps form not only communicative competence but also professional ones. Case method allows the instructor (teacher) work with various linguistic aspects and develop various skills.

Case method can be used in training students of all departments though it is important to consider their professional interests while making up cases. In digital era there appear a number of cases presented not with the help of a written text but with audio, video, photos or hyperlinks to various internet resources.

Making up a case with the set of tasks requires a lot of effort from the teacher who is to design a lesson working out questions for discussion, tasks for team and individual work, recommendations on how to present the case with the help of audio-visual facilities.

Shortcomings of case method can be explained by its being a multitasking tool. It is aimed at critical thinking and analyzing information, integrating theory and practice, demonstrating different points of view, alternative options, examples of the decisions made and their consequences. So, the technique is rather time and effort-consuming.

The shortcomings of the method mentioned above can be compensated by its advantages:
- it is possible to overcome the unemotional presentation of the learning content;
the method is highly educational and adds to the development of students' values and broadening professional horizons;

- it also helps develop students' autonomy;
- finally, case method can be implemented both in team work in class and individual studies within digital education.

In this article we present a complex of tasks and exercises made up by teachers of the Department of Foreign Languages of Astrakhan State University. The complex represents an example of using a case for developing the autonomy of learners of a course of English. It has been tested and widely used in the online course of English in 2020-2021.

Herein we present a case with tasks for communication, revision and mastering linguistic skills of students.

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**Case "Aliens in Russia"

**Part 1. A letter from the UK.

Anna, Saratov, Russia, received a letter from her pen-pal Helen, Cambridge, the UK.

Dear Anna,

It has been long enough since we met in London last year. I was really glad to receive your latest letter and learn that you and Misha are feeling fine. So are we. A little busy with our children, but hope to have holidays soon.

I am writing to discuss our holidays in Russia. Your stories about Russia and its people have made us long for a visit! We are thinking of booking a package tour of Russian cities next May. I need your advice badly as it's our first trip to your country. I've made up a list of places we are planning to see:

- Moscow (as it's the capital)
- St. Petersburg (as we are fond of museums and architecture)
- some ancient towns of Old Russ
- see nature reserves or sights
- meet you in Saratov as we're missing you all.

I suppose, we may have some problems:

- Tom is not much of a walker and dislikes travelling by coach or day train
- I prefer to travel light and in full comfort. Weather conditions matter much too.
- We usually buy loads of souvenirs wherever we go
- It would be nice to cut down on our travelling expenses

Do you think it's possible or am I unreasonable? What places would you recommend us to see? Where shall we stay during the tour? Will there be any serious problems with transport or weather? What should we take with us?

Would you be so kind as to help me to arrange the tour? Please, write back as soon as possible.

P.S. Tom is sending his love to you and Misha.

Lots of love,

Helen

---
Tasks.

1. Read the letter and summarize the information in 4-5 sentences.

2. Think of the problems Helen and Tom can face in Russia during the tour. Write them down and range in the order of their importance. Comment on them.
   - Weather
   - Transport and distances
   - Communication
   - Food and drinks
   - Local currency
   - Crime
   - Accommodation

3. Make up a program of their visit and a list of things they should take. Explain your choice

4. Write a letter from Anna to Helen answering her questions (about 200 words)

This case is used in the end of learning the topic "Travelling" for team work in class or for individual work at home. The text of the case provides opportunities for developing reading, retelling and discussion skills. Task 3, in fact, is a topic for project work. Task 4 develops writing skills.

The text of the case is divided into 2 parts presenting connected situations (the latter is Anna's answer to Helen's letter). This division provides the most efficient arrangement of working on the case, adds to students' interest and motivation of studying, allows them to work out the best possible solution or decision referring to their own knowledge and experience.

Part 2. Letter from Russia

Read and fill in the missing phrases:

Dear Helen,

I was happy to hear from you at last. We were missing you badly! I am glad you are all fine.

In your letter you wrote you (плануеме) ________ to come to Russia in May and asked me for help. I (помогу) ________ you with pleasure.

Firstly, I (могу посоветовать) ________ you to make up the route. I think you (следует посетить) ________ Moscow first, then spend a few days in St. Petersburg and finally visit us in Saratov. What do you think of it? Unfortunately, you (не сможете посмотреть) ________ the towns of the Golden Ring, as it (займет) ________ a week or so. I am

enclosing the program of the visit. Have a look at it! You (возможно захотите) ________ to make some changes.

As for your visit to Saratov, we (собираемся) ________ to go camping and fishing.

Misha has just bought a little motor boat. I (надеюсь вам понравится) ________ Russian nature.
By the way, (нужно мне бронировать) _______ tickets for you? I think it (будет) _______ easier to do it from here. If you (нужны) _______ booking, I (сделаю это) _______ for you.

In the end of my letter I (составлю список) _______ of necessary things:

- various clothes (rain ponchos, warm sweaters, comfortable shoes)
- fancy clothes (as you (собираетесь идти) _______ to the theatre)
- umbrellas
- backpacks for camping
- all Tom's pills (as it (может быть) _______ difficult to buy them here.

Write back soon! I (буду ждать) _______ for your reply.

My best wishes to Tom and kids,
Anna

Task

Discuss Anna's recommendations. Which of them do you consider useful / useless? What would you recommend?

After getting acquainted with the second letter, students are asked to compare their own recommendations with the author's ones. This allows to analyze the situation, to reconsider their own answers critically and to present a revised vision of the problem.

When students finish doing tasks on the text of the case they are offered to do a set of exercises for the revision of the main grammatical and lexical structures. In this case students are to discuss the ways of speaking about future presented in the text, and afterwards they practise these units translating similar sentences. Besides, new topic Modal Verbs is presented here.

Grammar and Lexis tasks:

1. Comment on the ways to speak about the future found in the letter.
2. Translate the sentences with modal verbs and comment on their use. Give your own examples of their use.

Grammar exercises

1. Translate the sentences into Russian, paying attention to future actions:

1. It may rain tonight. The weather forecast says.

2. We are planning to meet a lot of people at the conference. I hope, there will be a couple of VIPs.

3. Children may want to have some dessert, but I won't give them any until they have a proper meal.

4. Our boss is coming back to work in two days, so our easy life is going to end.

5. If you have nothing to do tomorrow, why not join us?
6. We are leaving for London in a couple of months if the restrictions are over. But it may take more time, unfortunately.

7. What would you do if the weather kept bad for several more days?

8. You shall be punished if I catch you again!

9. Tomorrow morning I will be preparing for the exam. Are you joining me?

II. Translate into English using the constructions of this unit:

1. Может быть, ты уберешь машину с дороги? Или я заблокирую тебе проезд.

2. Кто придет к ужину? - Мои родители. Возможно, будет мой брат, Тим.

3. Что вы будете делать на пенсии? - Мы планируем купить бунгало на побережье.

4. Надеюсь, ты не собираешься гулять под дождем. Ты можешь простудиться.

5. Где мне оставить вещи? Я не смогу носить их с собой целый день.

6. С 5 по 7 августа я буду работать над своим проектом. Может быть, я успею закончить его 6-го.

7. Что ты делаешь завтра? - Не знаю точно. Я зайду к другу, а потом, может быть, пойду в бассейн.

To sum up, such type of activity allows to actualize lexical and grammatical units as well as develop communicative competence. We consider that using case method in learning foreign languages opens new opportunities for students to refer to their own experience in solving a problem. It develops skills of autonomous studies and can be efficiently used in digital (online) education.

5 Conclusion

In the era of digital education, the organization of independent work of students requires special attention, since learning is transferred to an open information and educational environment and is aimed at mastering a large amount of information and building individual knowledge. This necessitates the development of educational autonomy, i.e. the ability of students to independently and successfully manage their own educational process and be responsible for its results. One of the effective means of developing educational autonomy can be considered case technology related to active teaching methods that stimulate cognitive activity, reflection and the choice of educational materials. It is advisable to apply case method in teaching foreign languages, including within the framework of higher education, graduate school and additional education, since the learning process at this stage reaches the level of conscious and meaningful assimilation of the presented material, as well as purposeful perception of information. As the results of this study show, in the context of digital learning, case technology contributes to the development of educational autonomy, namely, such abilities that indicate its formation as independence in decision-making, critical thinking, as well as responsibility for their educational activities.

Authors' contributions
The article has been written by a team of authors, all authors have taken equal part in the theoretical analysis of the problem and in carrying out the research. Elena Gorbacheva analysed and generalized ideas of the Russian and foreign authors on the problem of the research. Nadezhda Yemelyanova studied and described the process of foreign languages autonomy development. Irina Tuigunova developed and discussed the cases – the material for the research itself. Elena Ilova made an analysis of the research results and contributed to revising and editing the paper.

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FL Teachers’ digital competence assessment

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Abstract. Due to the Russian State Educational Standard, EFL teachers should possess a set of professional competences, including being ready to use modern educational technologies to support teaching in their classrooms. Despite calls for University English language teachers to have strong digital literacy skills, there is a reported lack of studies on the current level of EFL teachers’ digital literacy. The main goal of the study is to survey the digital literacy of EFL teachers of interpretation and translation currently employed at Astrakhan State University. This survey is based on the framework for digital competence for all citizens proposed by the European Commission JRC (Joint Research Centre). The framework includes five components: information, communication, creation of the content, safety, problem solving. However, additional items were added to the self-assessment grid to reflect the EFL teaching context. The results of the study demonstrate that half of the respondents consider their digital skills as “intermediate”, while 26% think they are “foundation level”. And only 18% are sure users of digital technologies. This study helped to identify in the participants some weak areas requiring further training as follows: safety is the most vulnerable point, followed by skills of creating content and communication tools awareness. Thus, the results highlighted the areas on which professional training can be focused. In addition, respondents recognized the beneficial contribution of learning technologies to their profession and expressed willingness to further develop their understanding and control of digital tools. This study therefore proposes to develop and implement a course for university teachers to improve their digital literacy skills and competences to create an innovative learning environment. The list of questions to include in the curriculum is proposed as well.

Keywords: digital competence, digital literacy, EFL teaching, e-learning.

1 Introduction

An explosive development of information technologies at the beginning of the 21 century has led to their penetration into all spheres of human activity, including education. This sphere, in particular, is currently going through a period of massive changes in Russia. One of the basic directions the sphere of education is targeting at is modernization and digitalization.

The Russian state education policy is defined by a number of federal documents. Among them Professional Standard 01.004 [1] according to which a teacher of higher and

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vocational education is required to have the following skills: along with the content knowledge of the teaching area and professional skills, a teacher should use modern educational technologies, including e-learning and distance learning [2]. Development of e-learning is a key component of the Russian state policy within the field of education [3]. During the Council for Science and Education (21 January 2016) and the meeting of President Vladimir Putin with the government (27 January 2016) the growing trend for digital learning technologies was highlighted. Dmitry Medvedev, the Prime Minister of Russia, also pointed out the importance of the development of electronic forms of education at all stages: school, university, vocational training. The state program “Digital economics of the Russian Federation designed up to 2024” was approved in August 2017. This program has defined five basic directions of digital economics development: “regulatory control; education; formation of investigation competencies and technical capabilities; infrastructure of information; personnel; security of information” [4]. To solve the main tasks of the direction “personnel and education” special attention should be paid to fostering teachers’ digital skills.

2 Problem statement

Astrakhan State University pays considerable attention to increasing their students’ and teachers’ proficiency in digital competences. Aiming at upgrading EFL teachers’ digital competence a number of professional training courses have already been successfully realized. In April 2017 a two months course on using the virtual learning environment MOODLE in the teaching process was initiated. Moreover, a new course “Information Technology in Education” was introduced into the teaching curriculum for the EFL teacher trainees. In January 2019, a discussion on prospects of the Astrakhan State University’s transition to a digital university was held, as a result of which, Konstantin Markelov, the ASU Acting Rector stated that a number of important steps should be taken on digital transformation to actively participate in the National Technology Initiative 2.0. [5]. Thus, successful realization of the above-mentioned projects and initiatives relies heavily on digitally competent teachers. These teachers are currently facing a number of challenging tasks: to make Internet environment a pedagogically friendly space, to manage the content and interaction with students in the digital environment. However, Russian researchers Koroleva D.O. and Havenson T.E. state that students use Internet technologies for educational purposes without teachers’ guidance. More than that, teachers ignore educational potential of modern information technologies and prevent effectiveness of the educational process [6]. According to Globa and al., University teachers do not know how to use ICT technology to a degree sufficient to create education learning environment [7].

3 Research questions

As we can observe, our modern world is turning into a society with a high level of digital literacy. This issue is being developed all over the world, including Russia. So, the questions we are focusing on in our research are as follows:

1) the present situation with the research in the sphere of digital literacy in the university context;
2) the average level of digital literacy of the English language university professors – teachers of interpretation and translation in ASU;
3) possible reasons for the problem and ways to solve it.

The concept of informatization of educational system was developed by academicians A. Yershov, E. Velikhov and others, who not only started the process of informatization in Russia but also elaborated main directions of its development; giving the priority in this
process to the higher education. According to those scientists, computerization is determined by the following factors:

- demand in highly qualified specialists ready to perform complicated tasks using digital technologies not depending on the professional sphere;
- requirements of the educational system which include an increase of quality of the educational process, optimization of its management, improvement of scientific research.

The International Standard of Computer Literacy was developed by the Ministries of six countries (Germany, Finland, Norway, Sweden, Switzerland, Austria) in 1984. The name of the standard is European Computer Driving License. It is used in 166 countries all over the world. This standard identifies the main abilities that should be made wide use of in the digital age (be able to use ICT technologies, work with data bases, Power Point, Internet, e-mail, text-editing [8].

According to the European Recommendation on Key Competences document, in 2006 digital competence is identified as one of the eight key competences for Lifelong Learning. Digital competence is described as the ability to confidently, critically and creatively use ICT to achieve goals connected with to work, employment, learning, leisure activities, inclusion and socialization. It is the main competence which empowers people to acquire other important competences in different spheres (e.g. culture, mathematics, language learning). As the document says “It (digital literacy) is connected with many 21st Century skills which should be acquired by all people to make certain they actively participate in society and economy [9].

In the conditions of developing digital economics in our country, every university applicant (including future interpreters and translators) should be aware that possessing a sufficient storage of personal and professional competences in the sphere of digital literacy is essential. Otherwise, his future qualification will be out of use in the country with digital economics. Especially it concerns interpreters and translators because nowadays technologies have progressed so much and are still in progress, that any professional in this sphere should stay informed and up to date.

It's common knowledge that to be an excellent student and, later on, a successful specialist, you have to have perfect skills in electronic educational means usage, as self-education plays the greatest role in the process of university education now. Besides, one of the main tasks of university education is to form a habit with students to constantly search for new knowledge resources. Any interpreter or translator should remember that this profession demands life-long learning.

If a student lacks the ability to work independently, his level of digital literacy is doubtful. Modern students use the Internet just to find some information which is usually to become plagiarism because it is cited in course and graduation papers, or turn to on-line dictionaries to translate something. They just work with the e-mail and look for information via search engines, or spend time in social nets. But these activities do not mean having digital literacy which can be seen as a 2-level structure consisting of basic level (minimum knowledge of computer science necessary for usage of any software) and professional level (digital skills necessary in professional sphere) [10].

There are a few research papers investigating the level of Russian students' digital literacy [11, 12] but they are not numerous. As a rule, they demonstrate that our students possess the level of digital literacy lower than average. What is the first thing to be done? Of course, it is to have teachers with a high level of digital competence as they are the very people responsible for creation of a modern specialist, a professional in digital world!

According to the Minister of Education and Science Olga Vasilieva, unfortunately, only 16% of teachers in Russia can use digital devices [13]. By now, this is, probably, the only survey performed among teachers, including all levels of education.
Another survey was conducted by the National Agency for Financial Studies among all Russian people of age and older not depending on their professional interests. The research was based upon the idea proposed last year at the Summit G20. At the foundation lies the definition of digital literacy which is a basic set of knowledge, skills and goals which enable people to solve digital problems effectively. The result was not very promising - only 51.6% of the tested had sufficient skills. The researchers tackled the problem from different angles, investigating 5 constituents of digital literacy: information, computer, communication, media and attitude to innovations.

As for the first point - information - the digital literacy index made up 54%. They assessed the level of understanding of the information value, the skills to search and analyze information, to be aware of its benefit or harm. Most people are sure that it is easy to find information on the internet. And they never think of its benefit or harm.

For the second component - computer literacy - the index equaled 46%. This comprises the skills of working with different interfaces, usage of the devices potential, awareness of the role of digital safety. Here, it is important to learn to protect information.

The index of media literacy was 65%. This literacy means orientation in media, the ability to assess the news veracity, to search for the news in different sources, etc.

Communication literacy index was 46%. It comprised the ability to use modern means of communication and to understand communication ethics in digital sphere. Three fourth of the tested thought that on-line ethics did not differ from everyday life ethics.

As for the attitude to innovations, the index was 47%. The researchers assessed people’s interest to new technologies, their knowledge of technological tendencies, understanding of innovations necessity.

Speaking about age difference, people older than 55 had the lowest level of digital literacy (index 28%), whereas those aged 18-24 showed index 77%. So, the age factor is relevant when we consider the level of digital literacy [14].

As we see, so far, there have been no surveys conducted among university teachers, and so the situation is not really clear. It is only planned to be performed as part of the national programme “Digital economics”.

A lot of researchers agree that nowadays we don’t speak about just using a computer in university teaching, we expect university professors to teach together with a computer, like a partner: to use the Internet, electronic and multimedia technologies in delivering knowledge and in its assessment, in developing students’ abilities to obtain knowledge independently, etc. [15].

So, digitalization of the educational system doesn’t mean only making digital copies of text-books or having an access to the Internet from every classroom. The first thing to start with is the idea of what to teach and how to do it. The importance of it is explicated by the fact that “Digital economics” will change the labour market - in many spheres a computer will substitute the man. And more people will have to become free lancers. In this context, digital technologies will enable people to start and develop business. This is especially relevant about the profession of interpreter and translator [16].

That will demand non-stop learning, in modern conditions, e-learning, which will continue throughout whole life. Taking this into consideration, teachers of all levels must prepare their students for such conditions. But first of all, they must be prepared themselves. It’s clear that many university professors avoid using modern digital technologies in every day teaching. One of the reasons might be a low level of preparedness and methodological support of teachers in using new opportunities.

Besides, it will take time for the society to change the attitude to education and to develop inner motivation in each person. A research carried out by National Research University of HSE (Higher School of Economics) which studied the issues of adult
education, showed that the main reason why adults are reluctant to learn something new is the lack of inner demand for it [17].

Actually, the problem of digital literacy has been burning in all countries of the world for a long time. For example, 10 years ago the USA elaborated a standard which determined the level of a college graduate in the sphere of informational literacy.

In the UK a research showed that 60% of students used plain search engines and doubtful sites to prepare for classes instead of e-libraries or specialized on-line services. So, the Parliament came up to a decision to introduce a special course for students to teach digital skills which should become essential, like English and Maths. And equally, they decided to prepare teachers with a high level of digital literacy.

Russia is not a leader in digital economy development. And one of the problems is the lack of specialists in digital economy, in different spheres of industry where high-production equipment cannot be efficiently used [18]. However, the situation with digital literacy is under close attention of the government. The regional Departments of Education report that the problem of a low level of students’ digital literacy lies in a low competence of professors who are unable to cooperate with informational technologies due to insufficient level of digital literacy [19]. As the wide notion of digital literacy includes mass on-line courses, learning management systems, as well as usage of various technologies, like virtual reality, artificial intellect, machine learning, robototechnics achievements, and other things, we can definitely state that digital education in Russia is not developed even when speaking about courses in digital medium [20].

Meanwhile, Russian officials continue discussing burning issues of the educational system reform at the Russian investment forum which started in Sochi on the 14 of February 2019. The key purpose is to attract investments into on-line education. At the forum, the special representative of the RF President on questions of digital and technological development Dmitriy Peskov declared about the foundation of the Fund to support creation and implementation of new educational technologies. He also reported that seven billion rubles will be invested into the digital developments in educational sphere in Russia. Russian digital technologies system is supposed to be developed under consideration of interests of Russia’s partners in The Eurasian Economic Union, The Shanghai Cooperation Organization and in BRICS countries [21].

4 Purpose of the study

In recognition of the rapid development of digital technologies and their effective application during classes teachers are continuously encouraged to upgrade their knowledge and skills. However, are English language teachers prepared to meet these requirements? And which digital literacies do EFL teachers at Astrakhan State University, Faculty of Foreign Languages possess? How confident are they in using digital educational technologies to support their teaching inside and outside their classrooms?

The main purpose of the study is to address the above questions, survey the digital literacy of the teachers of interpretation and translation at Astrakhan State University and give recommendations on the problem.

To reach this aim we target the following tasks:

1) To analyze the existing research in the sphere of digital literacy in the university context;
2) To determine the average level of digital literacy of the English language university professors – teachers of interpretation and translation in ASU via a survey;
3) To elaborate some possible ways out based on survey results.
5 Research methods

Undertaking a research study to find some answers to definite questions implies that the process “uses specific methods and techniques that are valid and reliable” [22]. The adoption of special procedures following a certain logical sequence makes the process of investigation systematic which is the key characteristics of a research [23].

According to the nature of the study there was used descriptive research method consisting in observation and description of a research subject “without influence or manipulation of the variables in any way” [24]. Furthermore, the main goal of this study predetermined resorting to inductive analysis, which makes wide use of detailed readings of specific data to single out concepts and models through interpretations drawn from the raw data by a researcher [25]. By means of this type of analysis there was worked out a concept of dealing with the problem of insufficient digital literacy level of the English language university professors.

According to its purpose this research belongs to applied studies, which means that the research methods forming the main part of the research methodology are related to the information about different aspects of the issue under consideration so that this information might be used for the understanding of the concept [26].

A quantitative research method was used to provide reliability and objectivity of the processed data and aims at quantifying variations in a phenomenon, situation, issue, etc. [27, 28]. The study involved the use of structured survey with closed-ended question format covering five constituents of digital literacy: information, communication, safety issues, solving problems, creation of the content. The survey as a quantitative research method was chosen for the study because it is considered a more appropriate way for data to be generalized [29].

To make research deeper and more valid researchers tend to employ quantitative methods alongside with qualitative ones [30], the latter being more concerned with context than counts and thus providing richness not easily achieved with quantitative measures [31]. To identify issues and analyze the reasons for digital problems qualitative research was conducted in this study in addition to quantitative one.

As for data collection methods, there were used both primary (the survey that has been mentioned above) and secondary data collection methods (surveys results that have already been performed in Russia among teachers and people of other professional interests to reveal the level of their digital literacy). Resorting to secondary data collection was conditioned by the fact that it serves as the basis of comprehension and confirmation of quantitative findings [32].

This study is conclusive since it provides conclusive answers to research questions [33].

6 Findings

6.1. Research objective

This study aims at surveying the teachers of English language departments at ASU and examining their digital literacies. Moreover, this inquiry will help teachers to integrate MOODLE and other language learning platforms more widely and effectively into their classrooms (curriculum).

6.2. Participants

The current study was undertaken at the FFL (Faculty of Foreign Languages) at ASU, Astrakhan, Russia. The Faculty is in charge of conceiving, designing, implementing and operating language curricula for all the University. The staff include 128 teachers (fulltime and part-time), serving more than 12000 students. All teachers and students at ASU have
access to the Electronic information educational environment. The classrooms have Wi-Fi and are fully equipped. Teachers may bring their own devices as well. Out of the 74 faculty English teachers, 63 agreed to voluntarily take part in the research. The survey responders included 55 females and 8 males who teach English as a major and a minor. Among them, more than 90 % are full-time assistants, associates, or professors, the part-time teachers amount for 8% only. All of them have a Master's degree or PhD in applied linguistics or pedagogics, TEFL or TESOL. Regarding their teaching experience, 63% of the sample have been teaching for 20 years or more, and 21% have between fifteen and twenty years. The respondents' age discrepancy is sometimes great: more than 40 years.

All the staff are not native speakers of English. They are the graduates of Russian universities, specializing either in linguistics or teaching foreign languages.

6.3. Data Collection Tool

All the teachers were asked to complete the questionnaire before the start of the 2-d semester of 2018/2019 academic year. They were sent an email with the questionnaire enclosed to it.

This survey instrument was adapted from a questionnaire created by ECJRS (European Commission Joint Research Centre) to evaluate the digital literacy of Europeans. This survey was conducted to assess the ability of EFL teachers in terms of:

1) searching and storing information, its reliability and browsing the Internet; knowing what tools can be applicable to activate students’ skills (reading, speaking, writing, listening);
2) interacting with students using different tools of communication and knowing the principles of online etiquette;
3) creating, editing and modifying different digital contents, including media ones;
4) protecting digital devices and updating security strategies;
5) solving problems and taking advantage of the technologies and digital tools.

The data was collected by 5 criteria using a 3-point scale to determine the teachers’ digital literacies. Teachers were asked to mark the level of their skills for each question as “foundation”, “intermediate”, “advanced”.

6.4. Findings

The data obtained were recorded on computer and analyzed through SPSS 17.0 statistical package program, the findings are as follows:

Table 1 shows the results on information, which determine significant level difference in teachers’ skills to cope with information.

The study has shown that 13% of the respondents evaluated their skills to deal with the information as “foundation”: they can conduct online searches using search engines, they are capable of saving or storing files, they know how to use digital content to activate students’ listening, reading, speaking and writing skills. Almost half of them (49%) indicated that they have “intermediate” skills: they can browse the internet for information and search for information online, select the appropriate information, compare different information sources. They know how to save information and have their own storing strategy. Finally, they use different digital tools to activate students’ listening, reading, speaking and writing skills. 38% of the teachers assessed their ability as “advanced”: they use different strategies to search for information, they are able to check if the information is valid and credible. Moreover, these teachers can apply different methods and tools to organize information, they know whom to follow in online information sharing places (e.g. micro-blogging). The use of a wide range of digital tools to activate students’ academic skills allows them to achieve very good results (Table 1).
Test results on communication, which were gathered to define if there is any difference in methods and strategies teachers use to communicate with students.

The survey results here are quite unexpected, as they indicate that 25% of teachers admit that their communication literacy level is low: they interact with students using communication tools, such as mobile phones and they can email documents to students and colleagues through simple technological means (sending them by email as file attachments). At the same time 54% of respondents successfully use a chat to communicate with students and colleagues and can moderate a group chat. What is more, they also use VoIP to organize a discussion with many participants. These teachers have indicated they know the principles of online etiquette and can apply them. Without difficulty they communicate in social networks. The least number of respondents – 21% use different tools to communicate online (email, chat, SMS, instant messaging, blogs, micro-blogs). They have admitted that they use several features of VoIP. In addition, they can run a video-conference and moderate it. They recognize that they know what strategies to use to discover inappropriate behavior and protect my digital reputation (Table 2).

Test results on content creation, which were analyzed to define if there is any difference in teachers’ knowledge how to use resources for content production.

The data illustrate that 62% of respondents evaluate their content creating skills positively. It is easy for them to create digital content in different formats, they can easily edit, refine and modify the content. These teachers are able to apply several modifications to software and applications and modify their webpage. Only 11% of the staff indicate that they can make digital content in different formats and on different platforms. Moreover, they use a number of digital tools to create original multimedia educational material and can create a new software. They are aware of the functions of the programmes. Quite a number of teachers – 27% can create simple digital content, make basic changes to the content, change simple function of software and applications. They admit that they can create an educational blog using web-editing tools (Table 3).

Test results on safety awareness, which were collected to determine the difference in teachers’ understanding of privacy issues and range of strategies they use to protect the information.

The survey data indicate that safety is the most vulnerable point here. Almost half of the respondents, namely 44% recognize that they can use basic steps to protect their devices (e.g. by using anti-viruses, passwords, etc.). They admit that using technologies can be addictive. The figure is practically the same – 48% - for those who frequently update security strategies, who can take action in case the device is under threat, who know how to correct inappropriate use of technologies to avoid addiction, etc. (Table 4).

Test results on problem solving, which show the difference in teachers’ ability to solve different problems and what tools they use to avoid them.

The study reveals that 19% of the teachers taking part in the survey admit that they have difficulty in solving problems. Their awareness ethical issues related to academic integrity surrounding Problem-Solving is very low. All they can do is to use some technologies to solve routine tasks.

67% of the respondents can select an appropriate tool and evaluate its effectiveness. They follow the latest tendencies and can do something new with technologies. A few people – 14% apply strategies that help them better understand a problem and find alternative solutions. They also employ creative techniques to the solution of problems and can determine the best one (Table 5).
7 Conclusion

Summing up, we can make a conclusion that the average score, which put 26% of the respondents on their digital literacies is “foundation” and average 56% of them mark their skills as “intermediate”. Only 18% on average assess their literacies as “advanced” (Table 6).

It should be pointed out that among those who recognize their literacies as “advanced”, there are 7 male respondents (88% of the total number). It is a significant difference between female and male participants’ opinion, in favor of males whose teaching experience is 8-11 years on average.

The researchers note that long teaching histories are no guarantee of the teachers’ digital competence and much effort is to be made to reach higher level of digital literacies. Teachers need to learn how to apply those incredibly diverse and sophisticated technologies efficiently and effectively. Teaching students is closely connected with the capability to adjust to the challenges of the digital society and new practices for creating electronic learning environment for them.

The researchers consider that the data collected can be used: 1. For further research on digital literacy among all the foreign language teachers of Astrakhan State University; 2. For further research of digital competence of English teachers in Russia; 3. For identifying needs and interests of English teachers to improve their digital competences; 4. For motivating teachers to improve their digital literacy skills and competences to create an innovative learning environment.

We firmly believe that the most constructive way out of the present situation with the lack of digital skills will be development and implementation of a course for university teachers for their work in e-learning environment. The curricular might include the following issues:

- digital literacy skills and up-to-date informational technologies, concentrating on safety and creating different contents;
- e-teaching techniques and methodology;
- benchmarking of modern distance systems and platforms;
- discussions of advantages and disadvantages of e-learning;
- studying of implementation experience in other educational institutions;
- practical trainings, master-classes, case-study on the communication and teaching techniques while using modern digital tools;
- teachers’ practice supervised by specialists in that sphere.

8 Figures and tables

Table 1. Test results of computer literacy levels of dealing with information

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Foundation</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>B-Intermediate</td>
<td>31</td>
<td>49%</td>
</tr>
<tr>
<td>C-Advanced</td>
<td>24</td>
<td>38%</td>
</tr>
</tbody>
</table>

Table 2. Test results of computer literacy levels on communication tools awareness
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8 Figures and tables

**Table 3.** Test results of computer literacy levels on creating different contents

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Foundation</td>
<td>16</td>
<td>25%</td>
</tr>
<tr>
<td>B-Intermediate</td>
<td>34</td>
<td>54%</td>
</tr>
<tr>
<td>C-Advanced</td>
<td>13</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Table 4.** Test results of the levels of computer literacy on safety regulations

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Foundation</td>
<td>28</td>
<td>44%</td>
</tr>
<tr>
<td>B-Intermediate</td>
<td>30</td>
<td>48%</td>
</tr>
<tr>
<td>C-Advanced</td>
<td>5</td>
<td>8%</td>
</tr>
</tbody>
</table>

**Table 5.** Test results of computer literacy levels on problem solving

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Foundation</td>
<td>12</td>
<td>19%</td>
</tr>
<tr>
<td>B-Intermediate</td>
<td>42</td>
<td>67%</td>
</tr>
<tr>
<td>C-Advanced</td>
<td>9</td>
<td>14%</td>
</tr>
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</table>

**Table 6.** Test results of computer literacy levels on all criteria

<table>
<thead>
<tr>
<th>Level</th>
<th>Information</th>
<th>Communication</th>
<th>Content creation</th>
<th>Safety</th>
<th>Problem solving</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Foundation</td>
<td>13%</td>
<td>25%</td>
<td>27%</td>
<td>44%</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>B-Intermediate</td>
<td>49%</td>
<td>54%</td>
<td>62%</td>
<td>48%</td>
<td>67%</td>
<td>56%</td>
</tr>
<tr>
<td>C-Advanced</td>
<td>38%</td>
<td>21%</td>
<td>11%</td>
<td>8%</td>
<td>14%</td>
<td>18%</td>
</tr>
</tbody>
</table>

**Authors' contributions**
The article has been written by a team of authors, all authors have taken equal part in the theoretical analysis of the problem and in carrying out the research. E.N. Galichkina analysed and generalized ideas of the Russian and foreign authors on the problem of the research. E.N. Gorbachyova described the methodology used in the research and wrote the original manuscript. N.A. Yemelyanova conducted the survey among the university teachers. N.A. Yemelyanova was responsible for the experimental design E.V. Ilova was responsible for the experimental design. M.V. Burlakova analysed the survey results, summarized the data and contributed to editing the paper.

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Innovations and digitalization in the Russian higher education development

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Abstract. The article deals with the current topic of innovation and digitalization in higher education. In the first part of the paper, the authors consider the evolution of management and the role of innovations in it, drawing attention to the fact that education system is in need of both product and process innovations. The second part of the paper examines the successful experience of Astrakhan State University, which has been actively implementing innovations in science, education and other areas for the past two decades. Further development of innovations in universities, according to the authors, will be related to the digitalization and involve increased cybersecurity; the use of virtual and/or augmented reality; artificial intelligence; social networks, specialized mobile applications for digital learning, etc.

Keywords: innovations, universities, innovation activity, digitalization, digital transformation.

1 Introduction

In recent years, the development of innovation activity has been one of the most important priorities in the higher education system of the Russian Federation, which is prompted not only by the political course and the relevant regulatory framework formed at the federal level, but also by the increasing competition in the education market, which forces universities to give priority to various innovation forms. In this regard, the successful experience of Russian universities in developing and implementing innovations in educational, scientific and other activities for further replication is of particular relevance.

The paper is aimed to examine the conditions and features for the effective development of innovation activities in higher education institutions.

The objectives of the paper are to analyze the concept of “innovation” and its role in management, including university management; to consider the development of innovations in higher education on the example of Astrakhan State University experience; to study the role and impact of digitalization on innovation in higher education.

2 Scientific review

The study of innovation, including in higher education, has been dealt with by scholars such as M.I. Palchuk, S.N. Kroytor, E. Hazelcorn, L. Zhang et al. Studies of foreign innovative

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universities can be traced in the works of P. Madgett, K.H. Belanger, K.M. Christensen. Foreign scholars actively consider the inclusion of universities in national or regional innovation systems (such as seen in works of S. Reichert, R. Cheng, G. Untura, et al.).

University innovation rankings have been developed and used, including The Reuters ranking and the World’s Universities with Real Impact (WURI) ranking, which assesses the industrial application of researches and lectures, start-up and entrepreneurial value creation as well as other parameters.

Attempts to combine various author’s positions describing competencies, tools and behavioral models involved in the process of innovation management were carried out in the work of A.A. Morales, I. Nielsen et al. However, there is currently no integrated approach or holistic framework describing the interconnected processes within the innovation system of higher education institutions. There are several theoretical strands of research, but they have developed in relative isolation, with rare interconnections and integration, making it difficult to understand the whole picture [1]. The topic of changing innovations in higher education under the influence of digitalization seems to be less explored.

3 Research methods

This paper was based on the following general scientific research methods: description, analysis, synthesis, content analysis, historical method, as well as the use of systematic and statistical analysis methods in the case study of Astrakhan State University in the empirical part of the article.

The methodology of the case study was to describe an interesting experience of introducing and developing innovation in a particular Russian university that has been purposefully implementing innovation activities for more than a decade. The analysis of experience served as an information source and formed the basis for an inductive process which resulted in conclusions and assumptions on the main components of successful innovation development in higher education institutions. This approach was chosen because the cases emphasise the rich real-world context of the phenomena which can be implemented in other similar organizational institutes.

4 The role of innovations in management

According to economists of the last century, the developed countries in the 21st century will witness growth not of the “business” sector (i.e. of organised economic activity), but of the non-profit public sector. Today management is most in demand and its practical application, based on sound theoretical principles, can produce the most tangible results in a short time. This is no accident.

Management theory first gained practical application in public and government organisations (the very first manager is considered to be an American town manager). The principles of management established by Frederick Taylor (who is considered to be a founder of the “management” and “manager” terms) were purposeful applied to the US Army in 1901.

During the Great Depression the terms “general management” and “business management” were deemed as equal, due to negative attitudes towards “business captains”. Thus, during the Great Depression, due to the political correctness in the United States the word “management” was generally avoided.

This changed in the 1950s as “business” became a decent term because of its rapid development, and management came to be regarded as a branch of science by virtue of the study and systematisation of tools to improve the efficiency of companies. Since then, the
academic world has identified the term “management” exclusively with the term “business management”.

Management is not about coercion and control. It is a specific and appropriate structure for all organisations and for each of them in particular [3].

The manager assesses the value of a good or a service to the consumer and estimates the proportion of income the consumer spends on purchase of particular good or service (distribution of own disposable income).

Management aims to mobilise the organization’s available resources to achieve planned results primarily in the external environment. It should be operational and cover the entire production and sales process, focusing on results and efficiency at all stages of the value chain.

However, there are differences in the management of specific organisations, since organisation’s unique mission, which forms its basis, shapes the strategy and organisational structure. The differences can be traced only in terms adopted by the different organizations.

According to P. Drucker, there are five phenomena that are not considered in the development and implementation strategies of most modern organisations [4]: the significant decline in the birth rate in developed countries (e.g. Central and Western Europe, Japan); changes in the distribution of disposable income (primarily sectors such as governmental organisations, health, education, leisure); performance measurement (finding specific indicators to measure efficiency and productivity); globalisation of competition (matching the global standards and leaders); increasing discrepancy between economic globalisation and the political situations in different countries.

These realities have an impact on existing companies and organizations, including education, which means that previous behaviors and strategies must be changed.

Considering that one of the most important functions of business, along with marketing, is innovation, let us focus on the latter.

Y. Schumpeter, who is considered to be the founder of the general Innovation Economic Theory, understood the term innovation as the formation of new products or services, new processes, raw materials, new markets and new organizations [5].

According to the current vision of the Organisation for Economic Co-operation and Development (OECD) [6], an innovation is a new or improved product or process (or a combination thereof) which is significantly different from previous products or processes of a unit and which has been made available to potential users or put into use. Thus, according to this definition, the term “innovation” can refer to both the action and the result of the activity. At the same time, according to J. Tidda, J. Bessanta and K. Pavitta [7], the line separating one type of innovation from another is uneven, as it is sometimes difficult to claim that a particular innovation has only occurred in a product, or process, or any other form.

Although there are many typologies of innovations [8], we would like to focus on the typology of technological innovations by J. Bauer and S. Christensen [9], who divide them into: breakthrough and supportive innovations, which can be either transformational (discontinuous) or evolutionary (continuous). At the same time, the authors claim that the key to prosperity in moments of “disruptive changes” is not about taking risks, investing in the long term or fighting bureaucracy. The key point is seen in the management of strategically important breakthrough technologies in an organizational context.

Innovation can take various forms [3. p. 37], such as creating a product at a lower price; creating a new product of higher quality or with new features; creating a new customer need. Innovation can also mean creation of a new way to use old products. At the same time, the creation of innovations involves not just reducing the cost of products, but simultaneously improving their quality.
Innovations are applicable in all types of business, industries and various types of activities within the organization (marketing, design, product creation, customer service, pricing, management, etc.).

The creation of innovations in an organization takes place through the contribution of each of its management units, which, guided by clear goals regarding innovation, uses the available modern achievements in a particular area to obtain the best possible result (e.g. quality management, personnel management, finance management, etc.).

Currently, innovative educational products and services are largely interconnected with the processes of digitalization. This means that the final innovative educational product or service takes the form of new educational electronic resources such as e-textbooks or educational formats, including e-learning and hybrid learning scenarios. Process innovations may include innovative processes, to provide, for example, opportunities for training personnel to professionally develop or to create new ways to establish cooperation between professionals in education [10].

To summarize the theoretical part of the topic of innovation, it should be emphasised that an important property of innovation is to generate new results in the external environment through it.

5 Innovations in higher education. The experience of Astrakhan state university

This study focuses on the experience of Astrakhan State University (ASU), one of innovative and dynamically developing universities of the Caspian region, which is based on academic traditions and modern technologies.

5.1 Innovations in Education

Astrakhan State University is a classical university with about 13,000 students (as of 2021). ASU provides 276 training programmes in all educational profiles.

Over the past fifteen years, Astrakhan State University has been actively establishing cooperation with world educational community. The strong cooperation ties with all partners and with foreign university partners in particular enabled ASU to involve and implement modern educational technologies, thus increasing competitiveness of the university not only at the regional level, but also at the Caspian region and national levels.

Thus, in 2007, ASU and Harvard Business School (USA) signed an agreement to implement Professor M. Porter’s Microeconomics of Competitiveness educational programme. At the same time, the Russian-American Centre for Education and Research was established at the University to transfer international experience in enhancing national and regional competitiveness and implementing cluster initiatives. This cooperation allowed the university to become a key partner and expert for the Ministry of Economic Development of the Astrakhan region in implementing the cluster policy in the region.

The course became the core of the Russian Presidential Management Training Programme, which from 2010 to 2020 implemented seven relevant educational programmes such as “City Management”, “Enterprise Development”, “Innovation Management”, “Education Management” and “Healthcare Management”. As a result, the University has established cooperation with major partner enterprises of the region, has trained a pool of highly professional staff for the needs of the regional economy (some 750 people), who have mastered international best practices and tools for enterprise and organisation development.
The second example of innovative technologies implemented in ASU is the Project method. In 2012 ASU was one of the first to join the International CDIO Association. The methodology of CDIO and the context of education at the university is based on the key imperatives “Conceive”, “Design”, “Implement” and “Operate”. In order to implement CDIO technology, integrated curricula have been introduced and an innovative educational space for agro- and biotechnologists, robotics and mechatronics has been created. An innovative approach in the implementation of the Global Initiative at ASU was in the fact that it was not extended only to engineering and natural sciences, but also to humanities, pedagogy, etc. For example, the CDIO principles were used to create a course in philosophy “for large groups”, which has been taken by about 9000 first- and second-year students. Conducting classes for lecture groups of up to 500 people involves innovative educational technologies [11] and more effective use of information resources. It should be noted that ASU students trained according to CDIO principles have repeatedly won prizes in robotics competitions (in 2021 at the Russian Underwater Robotics Cup competition - second place; in 2018 at the All-Russian Robotics Spartakiade - first place; in 2017 at the International Competition in China - second place).

ASU actively cooperates with European countries. An important innovative educational project for the region is the Caspian Higher School of Interpreting and Translation (CITS), which trains experts in interpretation and translation in two master programmes. The innovation of the programmes can be seen in the fact that executive bodies of the EU, such as the General Directorate for Interpretation and Translation of the European Commission and the General Directorate for Logistic and Interpretation for Conferences of the European Parliament participate in the educational process of CITS. This allows CITS to train highly qualified translators and interpreters within the programme, which the university has been implementing since 2013. This approach makes master’s programs highly attractive not only for the local community, but also for students from Italy, Kazakhstan, Azerbaijan, etc. The Master’s programmes gain unique popularity due to CITS cooperation with the World Intellectual Property Organisation. In the context of cooperation led by Memorandum of Understanding the CITS master students take part in updating WIPO Pearl terminology database.

Graduate employment show effective results due to contracts that are concluded for the further employment of students in leading international organizations. This makes the Caspian Higher School of Interpreting and Translation of ASU one of the best in the country according to European experts.

5.2 Innovations in Infrastructure

Since the development of innovation is directly linked to the availability of a modern innovation base for the university, the university decided to develop the material and informational component by creating modern elements of an open scientific and educational system, which changes according to external environment.

This policy has allowed the university to realize positive dynamics in quantitative and qualitative indices of its facilities: the number of campuses has increased from 3 to 12, the number of places in student hotels and dormitories has more than doubled, the quality has increased due to the use of modern building and finishing materials, a significant part of the academic classroom fund and the facades of various university buildings have been modernized.

One of the unique achievements that demonstrates the renovation of facilities was the construction of the new 15,000-square-metre school campus between 2009 and 2016, which
was completed in December 2016. Currently the campus is a strong training and laboratory facility, designed to be innovative and project-based, using the CDIO global initiative concept (creation of new educational and scientific spaces – an area where new types of scientific and educational, organizational activities are conceived, where the elements of new infrastructure are developed and designed, where the ideas are produced and translated into real or virtual cloud systems, and finally where implementation and improvement, enhancement of products, technologies and systems through upgrading of tangible property takes place).

The building includes a modern social infrastructure: student restaurant with 1000 seats, a swimming pool, “Writing and Thinking” space, eight halls equipped with soft furniture for students and teachers, as well as laboratories for robotics, modeling and situational analysis of logistics processes, an innovation center for creating multimedia content. All the campus classrooms are equipped with transformable furniture, contact panels and thin clients, served from a single 500-unit server. To ensure the energy efficiency system of the new campus, Siemens dispatching point (smart home system) was introduced to control the engineering network systems such as ventilation, air conditioning, water supply, heating, power supply and fire extinguishing systems.

This allows the university to build and design the educational and research process and space in a new way, constantly using and implementing innovations in the educational and scientific process.

5.3 Innovations in Science

In the early 2000s Government Fund named after I. Bortnik put forward an initiative to universities to create a “belt” of small innovative enterprises aimed to create products based on the researches conducted by the professors; to promote the products that are highly valuable for regional and national economy, as well as to train scientific personnel. Following this purpose and increasing the level of innovation of the university in science, ASU created Technology Park to become a basis for more than 100 small innovative enterprises by 2010. The Technology Park is designed for more than 100 jobs and includes research laboratories and scientific and educational centers, as well as a Regional Center for Nanotechnology and Nanoindustry, with modern infrastructure and research equipment. The result of this work was the development and implementation of breakthrough scientific research, increasing the publication activity of students, postgraduate students and professors (about 3,000 scientific papers annually), the creation of intellectual property objects, receiving grants of Russian (“START” “UMNIK”) and foreign programmes (Erasmus, Erasmus +).

The latest innovations of students, researchers and professors of ASU include agrobot for tomato harvesting, underwater robot SMELCOM ROV 200, egodron for monitoring water bodies “Legend”, software for detecting defects in industrial parts, 3D-printed shields with thermal sensors for face SMART FACE SHIELD, watermelon fitness snacks (made by special technology of boiling watermelon red pulp) and many others.

5.4 Innovations in Employee Development

To improve the quality of educational services and the level of competitiveness, since the early 2000s the university has been implementing a system of continuous development and training for managers, professors and research staff. For this purpose, an Organizational Training Center was created [13, C. 107-109], which operates on the principles of “a company that creates new knowledge” [14]. Every week for 1-1.5 hours the management of the Center held seminars to study the best foreign and national experience, as well as
the best practices of world leaders in various fields (such as Toyota, Harvard University, MIT, Moscow Institute of Steel and Alloys, St. Petersburg State University, Duna-Ast and Mikhailovsky Trade House). Organizational Training Center was not only aimed to study and disseminate the best international experience in creating new knowledge in higher education, but also to develop and implement new scientific, educational projects, products and services as seen in the experience of the Institute of Physics and Mathematics training students and schoolchildren in the robotics; in the forming creative thinking skills in students through socialization projects at the Faculty of Law, as well as the formation of entrepreneurship through socialization projects at the Faculty of Education. All this allowed the university to become a “self-learning” university, which demonstrates a culture of continuous improvement.

In partnership with foreign colleagues ASU aims to improve employees to form a community of leaders with special skills to develop innovative activities and to implement scientific and educational projects of the university. Thus,

- A modern specialized course “Writing and Thinking” based on the experience of St. Petersburg State University, Financial University under the Government of the Russian Federation, and the universities of Massachusetts, USA (Clark University and Harvard University, etc.) allowed to identify and describe new leadership qualities (team building, role distribution, etc.) in higher education, as well as to dissect examples of creativity and critical thinking in the educational process in these universities;

- A joint project with Worcester Polytechnic Institute (WPI) (USA) allowed ASU to join the Global Perspectives Program, in which students from the two universities worked in mixed teams on projects to improve the efficiency of the underwater pipeline in the Caspian Sea and increase the efficiency of the university campus. As a result, the professors involved in the project acquired modern competencies in the field of engineering sciences and digital culture, implemented a project and a team training approach in the university educational process.

- Participation in international conferences on CDIO initiative held at Harvard University (Cambridge, USA), Massachusetts Institute of Technology (Cambridge, USA), Delft Technical University (Delft, Netherlands), Queensland University of Technology (Brisbane, Australia) allowed to improve the skills of teaching staff on specifics of engineering training and launch the educational program “Robots and Robotics Systems” (first in the region) and effectively conduct training of specialists

- In the framework of cooperation with Toyota (Japan), several groups of ASU employees and students have visited industrial production of the company; in turn, the company experts have been invited to ASU. This laid the ground for technologies which helped to improve the organization of educational and scientific processes of the university, including “built-in quality”, “just-in-time”, etc.

The analysis showed that the long-term work on creation of university management system, aimed at the formation of conditions for effective development of innovation activities in its main areas, contributed to the overall performance and productivity of the university as a whole and increased competitiveness in the Russian and foreign educational markets due to:

- development of administrative innovations and administrative innovation process;
- formation of a highly qualified educational staff in a wide range of fields, providing training personnel with the opportunities to participate in innovation (and managing it) (formation of soft-skills), including the production and implementation of new inventions throughout the entire cycle of the innovation process;
- creation of an innovative material and technical base as an element of the university’s innovation management system;
- using the experience gained during the creation, operation and development of new forms of innovative and commercial activities, including through international cooperation;
- formation of an effective system of commercialization of technologies and other scientific and technological results, with the creation and operation of a Technology Park;
- formation of an educational environment based on innovative and practice-oriented teaching methods, including the methods adopted from the experience of the world community, contributing to the creation of intellectual property and innovative goods and services.

6 Digital transformation of higher education

In recent years, the topic of digital transformation [15] of higher education in the Russian Federation and in the world practice has become particularly relevant. This trend is supported by a wide range of federal programmes aimed to digitalize higher education, including federal programmes “Digital Educational Environment”, “Social Lifts for Everyone”, “New Opportunities for Everyone” under the national project “Education”; the programmes “Digital Economy of the Russian Federation”; “Development of Advanced Infrastructure for Research in the Russian Federation”, “Development of scientific and scientific-industrial cooperation” under the national project “Science”.

Digital transformation is a complex and ongoing transition in which multiple stakeholders in education including students, training and administrative personnel, as well as broader community must closely cooperate [16].

Rampelt F. and colleagues speaking of digital transformation in higher education, note its “transformative function, which means that it permeates all processes, places, formats and goals of teaching, learning, and research work in the higher education system; it includes the development of new infrastructures and the increasing use of digital media and technologies for teaching and learning, research and support services, administration and communication, as well as the need to develop new (digital) skills for students and staff current and future jobs” [17].

Given the new realities, modern universities are forced to look for new competitive models of university management to ensure their own sustainable development and sustainable development of the region (although, as experts note [16], there is no universally recognized model of digital transformation).

Astrakhan State University, due to digital transformation, will also have to face serious paradigm changes which will be implemented at the organizational, cultural and technological level. The new chosen model of digital development can further determine the success or failure of the organization, since being an innovative model it is “risky” in and on itself and will determine the ability of educational institutions to adapt to the market and the fact that it can loose or gain future students” [18].

The changes in the field of innovations carried out over the past years at ASU, have created a strong foundation for its digital transformation. Thus, the university has turned into a modern innovation cluster, an international hub which initiates and implements researches and educational projects in the Caspian macro-region through the strong cooperation ties with foreign partner universities. At the same time, further digitalization of the educational process poses important issues for the university, such as the use of innovations in mobile technology to improve the educational process; strengthening cybersecurity; active use of cloud technologies to foster innovation as well as the use of social networks and specialized mobile applications for digital learning, etc.
Conclusion

The conducted analysis allowed to draw important conclusions and highlight the following features of the effective development of innovative activity in the university:

1. In order for the innovation process to be effective, it must be accompanied by the personnel development through the aid of Organizational Training Center. During the training tacit knowledge and methods of its transformation are of utmost importance for gaining new knowledge and developing innovation. At the same time, training should involve processes of collaborative creativity with various stakeholders (universities, partner companies, etc.) in different forms, including virtual teams and projects.

2. The development of innovative scientific and educational products in various areas of training (e.g. basic educational programs, additional education programs) should be continuously updated on the basis of trends observed in the development of industries, global trends, changes in the political, economic and social situation of the region.

3. Successful implementation of innovative process requires the cooperation with foreign partner universities to be strengthened through a variety of methods, including participation in joint innovation projects and scientific research, implementation of double degree programs, enrollment of the university in international organizations, technology transfer as well as the cooperation with global industrial and business structures. This fits into the university paradigm of the “third mission”, which is currently gaining a high degree of importance for universities around the world due to global economic and socio-cultural transformations.

4. The innovation processes should be introduced to the university together with expanded, updated and innovated material and technical base, since it removes admission restrictions, improves the quality of scientific research and introduces modern forms and technologies to the educational process and diversifies training programs.

5. Further digital transformation of higher education will involve a change in the business model of the university: digitalization of administrative and management processes; the introduction of digital format in the entire value chain; digitalization of products and services.

Author’s contribution

A.P. Lunev - research supervision; formulation of scientific hypotheses; writing the manuscript.
G.P. Stefanova - writing the manuscript.
Y.N. Tomashevskaya - publications review on the topic of the article; writing the manuscript.

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Modeling a foreign language teaching in the multinational environment of the Caspian region

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Abstract. This article discusses the issue of teaching a new foreign language in the multicultural environment of the Astrakhan region. The role the native language plays, the benefit it provides while learning a new foreign language by students of primary educational institutions and university students is investigated.

Keywords: multicultural environment, native language, foreign language, elementary education, higher education.

1 Introduction

According to a resident population estimate of the of January 1, 2021, about 1 million people live in the Astrakhan region. The representatives of 147 nationalities reside here. The predominant population is Russians (67.6%), Kazakhs (16.3%) and Tatars (8.8%), however, as a result of migration, the number of Caucasians is steadily increasing. The population of the Astrakhan region name Russian, Kazakh, Tatar, Ukrainian, Armenian, Tajik, Gypsy, Nogai, Turkmen, Azeri, Uzbek, Turkish, Kumyk, Kalmyk, Avar, Dargin, Chechen, Georgian and many other languages as their native ones (mother tongue). Such a variety of languages gives the right to speak about the multicultural linguistic environment of the Astrakhan region.

2 The role of multicultural linguistic environment in the linguistic development of bilingual children in the elementary school

Nowadays there is a tendency of teaching English children under school age. The outcome of this kind of training sometimes seems quite contradictory. A kid can often know a lot of words or sing a number of songs, but in fact cannot make up any statement in English. Words are directly associated with the meaning, which is not enough at all to communicate freely. They hardly know polysemantic words, that are widely used. Kids’ vocabulary seems far from life, and it makes it hard to believe that they can master a foreign language. A child under school age can learn a foreign language if there is constant practice of speaking it both...
in classes and at home. A lot of parents take their children when travelling abroad and it adds to their practice of mastering a foreign language through speaking and listening. Before the revolution of 1917 in Russia there was used another method of involving children into the language environment: children were brought up by bonnes - English women or tutors - Frenchmen, so being bilingual among noble men was absolutely typical.

A linguistic environment is a historically established community of people exposed to a common language and culture, living on a certain territory [1]. From a linguodidactic point of view, one can speak of a linguistic environment as an environment in which language learning takes place. There are two types of language environment. The first type is the so-called natural language environment, that provides an opportunity to master a language in the country in which it is spoken. The second type is an artificial language environment; its main feature is the recreation of a natural language environment using various teaching aids. But the interpretation of the notion and type differentiation overlooks the multiethnicity of the language environment typical of a multiethnic region like the Astrakhan region, its multiculturalism. Multiculturalism comes from the Latin word multum, which means “many” and “culture”. This phenomenon denotes cultural diversity, cultural, linguistic and confessional mosaicism of the population of a state or a particular region [2, vol. 21, p. 426]. Having juxtaposed these two terms, we offer the following definition of the phenomenon of a multicultural linguistic environment: “it is a community of people living in the same territory, who are representatives of different cultures and religions, speakers of national languages. But in the implementation of internal crosscultural communication, units (that is, separately taken individuals) of a given linguistic environment can use or are using the official state language”.

The studies suggest that learning a language at an early age by bilingual children enhance the development of the part of the brain that is responsible for word fluency. The scientists assert that the effect is clearly seen if a child starts learning a third language at the age of under-five. The researchers have found out that bilingual people have more gray matter in the lower part of parietal cortex. Hence the later one starts learning a third language, the worse the effect is. It is the gray matter, that is responsible for information analysis. Although the brain plasticity of the gray matter has been well-known for a long time, the way the matter of the brain changes under the influence of outer factors and stimuli has not been studied well. Recent studies show how learning a third foreign language influences the brain structure especially at an early age.

According to different researches bilinguals in the world beat monolinguals. It is a well-known fact that about 70 % people of the world’s population speak two or more languages. Bilingual people are believed to have a better memory, ability to understand, analyze and speak on the linguistic phenomena, a quicker wit and reaction, a better math skills and logics. Bilingual people, who get full development, as a rule study well, master abstract sciences, literature and other foreign languages easily In present day reality it is no wonder that a special policy of learning a foreign language (foreign languages) is persuaded. Mastering a foreign language during the period of an active mother tongue acquisition, the child absorbs someone else’s speech as something natural, organic, which cannot be found later, when the brain speech function has already passed through the peak of its development [3]. They differentiate mastering of a third language by a child, a young adult and an adult. When a child masters two languages it means that there is a double mastering of the first language or mastering two native or first languages to make it clear that he masters his third language thanks to the same processes that were at work while mastering the first two languages. Mastering a language this way differs greatly from the ways that follow, for they cannot work absolutely spontaneously. The critical period of mastering a third language is the age of 8-11,
that of the primary school, after which you have little chance to get proper phonetic skills, naturally grasp language constructions and cultural phenomena of the language you learn.

Primary school is the first step of formal education for students. Schoolchildren are taught a foreign language starting from the second grade, and sometimes from the first one optionally. October 6, 2009 The Ministry of Education and Science of the Russian Federation issued order №373 making it obligatory to follow the theses of the Federal state education standard (FSES) of primary general education, which has a number of requirements referring to a foreign language program mastering within primary school as an integral part of the principal education program of primary general education. The profound analysis of the requirements makes it possible to come to the conclusion that by the end of the primary school schoolchildren are supposed to show their skills in writing and oral communication with native speakers, their possibilities and needs met, master the rules of linguistic and non-linguistic behavior, have basic linguistic knowledge and outlook to master elementary oral communication and writing. Besides schoolchildren are to develop friendly and tolerant attitude to native speakers and their culture based on their learning of their peers’ lives and traditions [4].

The approach of systematic activity makes the foundation of the FSES. According to this approach a learner is an active participant of the studying process. Although the schoolchild is expected to be able to communicate in the foreign language, the outcome is that more than a half cannot show this ability. In bilingual environment “pure” communicative approach to teaching a foreign language can be ineffective. On the other hand, it can be useful to enrich the communicative approach with a cognitive component as well as cultural and ethno-social components [5].

The concept of the native language consideration is one of the leading ones at primary school. Rare are the cases, when teaching a foreign language is not based on the schoolchildren’s native language, but those are typical of extra-curriculum activities, with a native speaker teaching. The analysis of the experience of school functioning in the Astrakhan region has shown, that the Russian language is still the key, though not the only one language of teaching-and-learning process. Meanwhile according to the data of 2018 32 schools in the Astrakhan region provide students with an opportunity to learn the native (non-Russian) language. Students therefore had the right to get education partly in their native language. The teacher draws parallels between lexical units, grammatical phenomena, graphics, spelling, listening to native and foreign languages. Taking into account the native language when teaching a foreign language at primary school plays an exceptional role: the new material does not cause difficulties, but, on the contrary, motivates students to learn, makes it easier to overcome problems by comparing already familiar linguistic phenomena and new similar phenomena of a foreign language. The inability to use the native language can lead to misunderstanding, misinterpretation of the studied facts and cultural phenomena [6].

In the world studies devoted to the issues of mastering a foreign language, researchers argue that during the process of learning a foreign language, the students form their own system in their mind, which seems to be a result of an unconscious comparative analysis of the native language and the new language they are learning. But since a new language acquisition is a long process that does not always lead to complete assimilation to the language at the level of the native speaker, then at each stage of language learning the emerging system will include various deviations from the language norm, which appear in the speech of an individual as errors that can be projections of the rules and language habits of the native language (or the language of the environment) into a foreign one. That is, this system is a changeable, dynamic one, which, as the language is learned, acquires features that are more and more similar to the system of the language being studied. Thus, a student’s foreign language speech is based
on a full-fledged language system, just like at the basis of his native speech. This is an independent intermediate system that is different in its organization from the native language or the language of the environment and a foreign language, which is being designed again.

Taking into account the diversity of cultures and languages of the Astrakhan region, we can say that children who are representatives of national minorities are bilingual. Because, as a rule, their families use the national language as their native language, and in the “out-of-family space” they use the language of the environment, which is Russian. There is such a phenomenon when all family members use the Russian language to communicate within the family and outside it, which may be associated with a long-term cultural impact on this social unit of the linguistic environment of the Russian-speaking society.

Recently they have argued a lot of the positive influence of bilingualism on children’s cognitive abilities. Still there is no single reply to the question if Russian - national language bilingualism has a positive or negative impact on children’s mastering a third language.

Internal factors: the majority of the group is female; students demonstrate different levels of language proficiency (but, according to observations, by the time they leave primary school, students have approximately the same level of language proficiency); students express different assessments of their abilities, as well as the level of anxiety; there is not a pronounced motivation due to the age peculiarities. Instrumental measurement of language abilities was not carried out.

External factors: at the microsocial level, a favorable psychological climate in the group and in the classroom should be noted: students actively participate in the work in the classroom, try to listen to and respect each other. The relationship with the foreign language teacher is favorable. Teaching a foreign language, namely English, in an elementary general education school is carried out in the classroom-lesson system of instruction. To master the language, you have 34 academic weeks at the rate of 2 hours per week, which ultimately amounts to 68 hours. 237 hours are allocated to cover the basic educational program of primary general education in a foreign language, including the circle classes in the first grade. During this time, the teacher needs to form the necessary knowledge, abilities and skills in students for them to be able to ascend quietly and assured the next step of the education ladder. In modern realities, the teacher has to take into consideration the peculiar features of students, proficiency in their native (non-Russian) language among them. It is important to note that with the right approach to teaching bilingual children, you can achieve high results in a shorter time when learning English, which in this case is the third language. To understand the learning process in detail, you can consider it from the point of view of teaching phonetics, vocabulary and grammar.

When teaching phonetics, bilingual children often neglect interdental and soft sounds, preferring to pronounce consonants in a solid form. The grammatical part of communication seems to remain the hardest one to master while learning the English language, but, nevertheless, with proper training, this aspect of the language is learned successfully. The greatest difficulty is the vocabulary, since many words of the native and Russian languages are not always similar and have no analogues. Considering all these facts, it can be argued that, like any other child, bilingual children find something more difficult, but something easier, due to a greater language experience in comparison with their peers who do not have it. Each case is individual, as well as the specifics of the native (non-Russian) language. So the teacher has to act based on the language situation in which the student finds himself. As mentioned above, with the right approach, bilingual children can achieve excellent results in learning a foreign language especially in the primary school.
3 The place of the universities with a mixed language environment

In the article, entitled “The Language Environment of World Universities in the Context of the Internationalization of Higher Education,” M.O. Guzikova asserts that, according to the language environment, universities can be divided into three types: 1) monolingual universities; 2) universities in which teaching is conducted in the lingua franca in a multilingual environment; 3) universities that provide teaching in another language (mainly English) in the case of some educational programs [7]. FSBEI HE “Astrakhan State University” is a classical university in which 15 foreign languages are studied. Teaching of these languages is mostly carried out at the department of foreign languages, but students of other departments learn French, German, Chinese, Turkish and Farsi in addition to English. Based on this, the educational process is carried out in 2 or more languages. Therefore, in addition to the classification of M.O. Guzikova, we offer the fourth type – universities with a mixed linguistic environment. This type will take into account several factors: 1) a multicultural linguistic environment; 2) the abundance of languages taught at the university; 3) need for a language (the need to use a foreign language not only in classes, but also outside them).

If a person over 18 finds himself in a foreign language environment he masters a third language naturally while communicating with native speakers, but having some experience he has to think more of the structure of the new language. As a rule, people of the said age who learned a third language outside special educational institutions do not use proper idiomatic expressions, but set expressions, which are sometimes far from modern language, and show themselves as having a low level of knowing the language. It is absolutely clear that people have different abilities to master a foreign language. Good conditions and a proper approach cannot guarantee equal outcome of learning a third language. But those having an opportunity of communication with native speakers are sure to learn the language better.

Students of the Department of foreign languages of the Astrakhan State University are taken as an example to show how a foreign language is taught. Direction: 44.03.05 Pedagogical Education. Profile “Foreign Language (Turkish)”, qualification (degree) - bachelor (form of study - full-time, total study time - 5 years, FGOS HE - FGOS 3 +++, admission year - 2020) in the end of the spring-summer semester. The group consists of 12 students.

Internal factors: the group is female, aged from 17 to 21; students demonstrate different levels of language proficiency, however, the general level of the group is roughly at the A2 level; students express different assessments of their abilities, as well as the level of anxiety; there is motivation of both instrumental and integrative nature, of varying degrees of intensity (based on oral questioning). Instrumental measurement of language abilities was not carried out.

External factors: at the microsocial level, a moderately favorable psychological climate in the group and in the classroom should be noted: students actively participate in discussions, freely express their opinions, listen to each other, respectfully treat someone else’s position. The relationship with the teachers is also favorable.

At the macrosocial level, the different ethnic origins of the students, hence the different language experiences should be noted. Students take as their native language: Russian (50%), Azeri (25%), Kazakh (16%), Avar (9%).

During the development of the basic professional education program of higher education in this area, the student masters a number of universal, general professional and professional competencies. To study disciplines taught in a foreign language (in particular, Turkish), 2520 hours are allotted. Compared to the initial stage of education (primary school), the number of hours is strikingly different. One cannot but pay attention to the fact that the 2520 hours comprise both all the aspects of studying the language (the Phonetics. Grammar, and
Vocabulary of the language) and the aspects of the country studying, including the culture of the country of the language the students study (the historical events that determined the current cultural appearance of the country of the target language), for studying a language cannot be separated from studying the country’s culture whose integral part it makes.

As a result of the observation of the students of this group, we can conclude that those students who do not consider Russian as their native language learn phonetics, vocabulary and grammar of the Turkish language faster than the others. From this we can conclude: it is easier for bilinguals to master new languages, since they have experience in the parallel development of languages (since childhood, they simultaneously learned to speak two languages - their native language and the language of the environment - Russian). The teacher is forced to take this fact into account when explaining the new material, since the systems that develop when students master the language differ. This is influenced by the interference of the rules and linguistic habits of native languages (comparison of phonetics, grammatical structure and lexical units of the native language and the language studied).

4 Conclusion

Scaling these conclusions to the entire Astrakhan region, we can say that when teaching a new foreign language to students of primary educational institutions and university students in a multicultural language environment, one cannot overlook and ignore the ethnolinguistic characteristics of students. No matter what foreign language a schoolchild or a student might study, the system of their native language will influence (not always directly, sometimes through the prism of the environment language) the individual language system that develops during language learning. This system will strive for identity with the system of a native speaker of a foreign language.

Authors’ contributions

The article has been written by a team of authors, all of them have taken equal part in the theoretical analysis of the problem and in carrying out the research. D.P. Grygryshev analyzed and summarized the ideas of Russian and foreign authors on the problem of the research. N.A. Emelyanova summarized the data and wrote a part of the original manuscript that affected the problems associated with the teaching of a foreign language at the university. D.A. Lychagina was responsible for writing a part of the original manuscript that affected the problems associated with the teaching of a foreign language at the primary stage of education. E.V. Moshnikova made the analysis of the results of the study and contributed to the revision and editing of the article.

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Training a modern physics teacher in institutions of higher education in the context of education digitalization (case of Astrakhan State University)

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Abstract. The article determines the necessity and possibility to use digital tools in higher education institutions in the process of students’ mastering their skills of professional activities related to designing and conducting a modern lesson of Physics. The research methodology was based on psychological and pedagogical activity theory the main patterns of which were proposed by P.Ya. Galperin. Electronic educational resources system has been elaborated aiming to develop skills of planning and giving lessons during which the students define the notions of a physical phenomenon, a physical object, a physical value, identify science facts and discover physical principles as well as apply acquired knowledge in particular situations. The article demonstrates the structure and content of electronic educational resources that are implemented through LMS Moodle in the course «Physics Teaching Methods» and include informational module, module of activities to be developed, educational materials module, forum and assessment. In conclusion the authors enlisted advantages of educational process organization with the use of electronic educational resources and presented the results of long-term pedagogical experiment on implementation of developed electronic training model.

Keywords: education digitalization, electronic educational resource, types of professional

1 INTRODUCTION

Digitalization of all human life spheres relieves people of routine activities, gives them opportunity to carry out various electronic operations (banking, fiscal operations, booking airtickets and hotel, etc.) quickly and efficiently, to interact with state and private institutions in due time as well as to enjoy a wide range of electronic services. Certainly it is an advantage of a modern society.

Digitalization has touched upon such a crucial field as education. A national project “Education” makes a focus on digital tools application in educational institutions information environment [1].

Education digital transformation hasn’t occurred coincidentally. There are several reasons for it, and one of them is a change in student’s status. Learning activity in educational

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institutions classrooms is not the only one as modern-day students may combine learning under higher educational programs with work, sports, children upbringing, caring of parents, etc. Besides, a long-lasting pandemic requires changes in forms and content of training at educational institutions in the situation when it has become possible to study academic subjects by means of distance learning technologies. These factors pose new objectives for educational institutions teachers – developing modern digital learning tools, changing lessons format, forms of the students’ intermediate and final achievements assessment. Educational institutions teachers’ activity has changed due to new distant opportunities, communications and cooperation with the students that provides continuity of educational process with the students from all the Caspian region countries - Russia, Kazakhstan, Turkmenistan, Iran, Azerbaijan.

There are many electronic educational platforms on educational services market, which provide the students with easy access to information and taking any educational course independently. There are efficient electronic educational platforms such as Coursera, Stepik and others which are used in Russia and in foreign countries. Their introduction to the educational process has both advantages and risks [2].

The requirements of new Federal State Educational Standards of Higher Education state the necessity to develop electronic information educational environment (EIEE) in universities that should record not only students’ intermediate and final achievements but educational process as well. It requires specific didactic training tools - electronic educational resources (EER) which include theoretical material of the course under study, tests to control progress in learning process, various tasks for individual and team work both in classrooms and distantly. EER should provide the option to discuss the search of problems solutions with the students, to correct the tasks schedule, to control and independently assess the achieved results. Analysis of foreign countries experience in using computer technologies shows that most countries have seen the need to implement EER as a powerful subjects teaching tool [3, 4].

Despite the fact that e-learning technologies and tools are developing rapidly, the issue of their impact on training efficiency in comparison with traditional technologies is still open.

Therefore a modern higher education system has a long-term objective to resolve the conflict between educational potential of EIEE of all the universities, including those of the Caspian region, and impossibility to fully fulfill this potential due to insufficiently developed content of digital tools which provide an opportunity to form the graduates’ professional activities skills and to manage the process of their mastering.

2 THE RESEARCH METHODOLOGY

Each EER is based on a certain model of training. If it is a traditional model with the use of electronic educational materials, then, the graduates’ skills quality will not change significantly. In order to increase the skills quality, to achieve new educational results that meet modern conditions of professional activity, it is vital to shift to new models of educational process, particularly, to the model based on P.Ya. Galperin’s psychological and pedagogical activity theory [5]. P.Ya. Galperin’s theory has been developed and implemented in Russia since the middle of the last century; it determines training types, reveals the essence of learning as a process of phased formation of knowledge and actions [6]. The general provisions of psychological and pedagogical activity theory are detailed in methodology for teaching various subjects, particularly Physics [7].

Nowadays improvement of training under bachelor and master programs “Pedagogical education” is aimed at increase of educational results quality from the level of methodical
skills to the level of professional competence that is developed with the use of digital educational tools. Until recent times e-learning tools in the field of Physics had been developed in order to improve the students’ individual work and to control this individual work performance both in the framework of traditional educational process model and blended learning technology [8-12].

Many researchers have studied e-learning on the basis of psychological theories patterns (behaviorism, cognitivism, constructionism, activity theory) and proved that activity theory may be successfully applied to e-learning [13-18].

The need to develop the model to form the students’ professional activities with the use of EER based on P.Ya. Galperin’s theory is determined by the difficulties, which the students face when solving practical tasks in postgraduation work practice. This research goal is to develop and to implement such a model of educational process that will allow to form Physics teachers’ professional activities on the basis of the students’ acquiring general methods of solving professional tasks with the use of EER [8-12].

3 THE RESEARCH RESULTS

For more than 10 years Astrakhan State University has been conducting a research on implementation of uniquely designed EER developed on the basis of psychological and pedagogical activity theory and placed on LMS Moodle platform for students to learn “Physics Teaching Methods”.

There were developed and applied to Physics teachers’ training process such electronic educational resources that help to form the students’ practically relevant activities related to the skills of lessons planning and managing schoolchildren’s activity with regard to development and application of new physical knowledge. The created EER secures development of single actions that constitute the content of the activity on such Physics lessons planning and conducting.

The necessity for the students to learn general methods to create Physics knowledge both at empirical and theoretical levels of learning is the foundation to develop the methodology of phased training of future Physics teachers’ professional skills [19, 20]. A teacher who has acquired these skills in university will be able in his or her further practical activity to arrange schoolchildren’s independent studies to obtain new knowledge. We have identified the actions that, if fulfilled stage-by-stage, will enable a teacher to plan a Physics lesson during which schoolchildren will be able to obtain new knowledge independently:

- to identify specific physical knowledge that the students should develop during a lesson;
- to determine the level of learning (empirical or theoretical) at which the students may develop the specified physical knowledge;
- to define the specified physical knowledge created during the lesson:
  - defining a notion of a physical phenomenon or a physical object, or a physical value;
  - a science fact;
  - a physical principle;
- to specify generalized logical actions which, if fulfilled stage-by-stage, will help to create proposed physical knowledge;
- to identify which of the actions may be fulfilled by a teacher and which ones - by the students;
- to choose and develop didactic means required to create the specified physical knowledge (a demonstration, laboratory or computer experiment, a presentation, digital educational resources);
● to develop a scenario for a part of the lesson devoted to creation of physical knowledge, having chosen the words and expressions which correspond to the relevant actions.

In order to acquire the students’ newly created physical knowledge, its further application in specific situations should be arranged. At this stage of the lesson a teacher should act in accordance with the following algorithm:

● to define the types of activities where the created physical knowledge is applied;
● to specify generalized actions on application of the created physical knowledge in accordance with the defined types of activities;
● to develop tasks aimed at identification and presentation of the created physical knowledge;
● to choose or to arrange 8-10 specific situations to perform the proposed tasks;
● to develop the task performance program;
● to choose and to develop didactic means required to arrange the stage of the created physical knowledge application (a presentation, educational maps, workbooks sheets, calculuses, digital educational resources);
● to develop a scenario for a part of the lesson devoted to the created physical knowledge application, having chosen the words and expressions which correspond with the relevant actions.

Then the students learn to give Physics lessons that they have worked out. In order to practice professional skills in university, a lesson modeling method is applied when each student acts as a teacher arranging his or her fellow students’ cognitive activity on creating and implementing new knowledge; pedagogical practice provides an opportunity to practice the required skills while working with schoolchildren. Thereby the students learn the following actions techniques:

● arrangement of a part of the lesson aimed at the students’ being positively motivated to learn new physical knowledge;
● actualization of knowledge and actions required to create new physical knowledge during the lesson;
● arrangement of the students’ cognitive activity on new knowledge creation and application with the use of developed didactic means;
● analysis of his or her activity and the students’ activity at every stage of the lesson.

The described actions of Physics teachers are new to the students; they were not included in the previous experience. It determines the need for their purposeful formation. For this purpose we have developed independent electronic resources either of which provides an opportunity to form the students’ specified skills related to arrangement of schoolchildren’s activity on creation of new physical notions, science facts and discovery of new principles. These actions are based on specific knowledge of General Physics and Physics teaching methods: definitions of physical phenomena and processes, physical objects states and properties characterized by specific physical values, interaction forms and conditions; guidelines for lessons scenarios development, didactic means including a demonstration and laboratory experiment, samples of text and video scenarios for Physics lessons, texts and video clips describing the scientists’ discoveries, tests, logical schemes on physical knowledge creation, educational maps on video tutorials analysis.

The mentioned knowledge and guidelines for actions are included in each electronic educational resource the use of which helps the students to form all the types of Physics teachers’ regular activities. Formation of the specified types of activities is achieved through implementation of blended learning technology with continuing interactive cooperation and strong control over the results of each action learning with the use of digital tools.

The developed EERs consist of the following modules: informational one containing
traditional educational materials in the forms of the subject work program, methodology instructions on course practicing, administrative information, as well as specific elements designated for interaction and communication (news forum, a chat, Wiki, a seminar); educational materials module and knowledge assessment module.

Each electronic educational resource is a unique training tool that secures achieving educational result planned by a teacher - all the students’ acquiring required knowledge and methods to apply this knowledge to the specified actions that is provided through multiple performance of specific tasks on topics of school Physics course.

EER application methodology has been developed in compliance with activity theory patterns and is implemented in several stages: motivational, content-planning, activity-related and reflexive ones. The motivational stage aims to stimulate the students’ interest and need for learning methods to solve professional tasks of a modern Physics teacher working in the context of education digitalization. The content-planning stage forms a general guidelines basis for the students to independently create and apply new physical knowledge. The use of these EERs digital tools provides an opportunity to implement over and over the planned actions and activity in general, which result in the lessons scenarios developed by the students. Then, at the activity-related stage, the students act as a teacher and arrange their lessons for the students in the classrooms. The essence of the reflexive stage is to comprehend the actions of both “teacher” and “students” after the lesson held.

During implementation of all the methodology stages the students not only get acquainted with such innovative educational technologies as Scrum-technology, peer training, team work, but also become their direct participants.

Electronic resource tools, that are regularly applied in the students’ training process, help the students to develop a general method to plan any lesson under school Physics course, during which schoolchildren will be able to create new physical knowledge independently; to develop skills to conduct such a lesson and to draft required didactic materials both in classroom with the fellow students and in real school conditions.

The developed EERs structure and content are represented in the Figure.

**Figure.** Structure and content of electronic educational resources applied to the course “Physics Teaching Methods” in the frameworks of LMS Moodle e-learning system.
4 THE RESULTS DISCUSSION

Certain challenges arise when arranging educational process to achieve the planned results with the use of developed uniquely designed electronic educational resources. These challenges are caused, firstly, by insufficient comprehension of the essence of psychological and pedagogical activity theory, and, secondly, by persistent analysis and correction of didactic and methodological materials taken by the students from different printed and electronic resources that implement only traditional training model. Formation of the described types of professional activities and individual work with the use of EER is not a customary activity for the students as some of them do not have such educational activity experience. It means that teachers in higher educational institutions need some special training.

EIEE is designed to overcome these challenges and to make the students’ educational activity results-oriented, dynamic and conforming with the modern conditions through EERs that provide classroom contact work of the students and a teacher, individual learning of educational information, interaction between educational process participants, current testing and assessment.

Experience of Astrakhan State University in implementation of the developed methodology demonstrates that so called blended learning has a methodological advantage as it provides an opportunity to use both face-to-face and electronic modes of learning.

Electronic educational resources have passed long-term testing during a pedagogical experiment aiming to assess the opportunities of digital tools application to form the students’ professional types of activities.

The pedagogical experiment included summative, research and training stages. The first stage was to identify the level of the students and teachers’ skills relevant to developing and conducting Physics with regard to acquiring new knowledge by the schoolchildren. The research stage revealed the opportunities to apply certain elements of EER in order to form certain actions of the specified activity; didactic means (tasks, educational maps, educational instructions, lessons video clips, etc.), guidelines and actions assessment criteria were tested and corrected At the training stage students demonstrated their activities on planning and conducting Physics lessons.

The students from various countries of the Caspian region - Kazakhstan, Turkmenistan, Azerbaijan - participated in the experiment that has been carried out since 2007 up to the present day.

The students were to fulfill the following tasks in order to assess the efficiency of the developed methodology:

- **Task 1.** When developing a part of the lesson on creation of new Physics knowledge, complete a generalized logical scheme with some specific content (different topics of school Physics are suggested be provided).
- **Task 2.** Identify the types of activities on application of new physical knowledge created when studying the topic … (a certain topic is indicated).
- **Task 3.** Choose any topic of school Physics course and plan a part of the lesson on creation of new physical knowledge in accordance with the generalized logical scheme.
- **Task 4.** Design a phase in the lesson that organizes student activities to use new physics knowledge.
- **Task 5.** Conduct the lesson that you have developed with the students of a certain year of study.

All the students succeeded in the specified tasks that proves efficiency of digital tools application in the process of a modern teacher training in the university.
5 CONCLUSION

Astrakhan State University long-term experience in arrangement of training process to study the course “Physics Teaching Methods” on LMS Moodle platform significantly changes the quality of teachers’ training. Practicing of every action of professional activity provides an opportunity to make the graduates ready for work in modern educational space of any educational institution with a certain category of students.

Application of electronic educational resources not only develops the students’ knowledge in the subject field but also forms such skills as self-organization, team work, strategic vision of searching the ways to solve the problems, systematic thinking, development of leadership potential.

AUTHORS’ CONTRIBUTIONS

I.A. Krutova - developing the concept, the research methodology, identifying general methods to solve professional tasks of Physics teachers, conducting the pedagogical experiment, writing the article.

T.V. Kirillova - developing the system of uniquely designed electronic educational resources and making them available on LMS Moodle platform, conducting the pedagogical experiment, writing the article.

G.P. Stefanova - identifying the system of teachers’ professional tasks and general methods of solving these tasks, writing the article.

M.A. Fisenko - developing the system of profession-oriented tasks and implementing them in educational process at Astrakhan State University, writing the article.

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