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General information

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The main thematic focus of the journal "Pedagogy and Psychology" is the problems of the current state of all education levels.

Research, analytical, scientific and methodological articles reflecting the results of fundamental and applied research corresponding to the subject of the journal, as well as review articles with a clear indication of the conceptual position of the author(s) are accepted for publication.

Thematic directions of the journal:

- Innovations and problems of development of modern education
- Psychological and pedagogical problems of training specialists
- Current problems of inclusive and special education.

The mission of the journal is to attract scientists and educators to an open discussion of current problems of education, science; to support creative initiatives in the field of educational policy, theory and practice, to promote the integration of the activities of domestic and foreign scientists and teachers to improve the system of higher, secondary, general, additional and vocational education.

The target audience of the journal: the teaching staff of universities; academic staff and experts in the field of preschool, secondary, vocational and higher, postgraduate education; doctoral students, postgraduates, applicants, undergraduates and students of Kazakhstani and foreign universities and scientific and educational institutions, school teachers, teachers of additional education, etc.

The journal is included in the List of leading peer-reviewed scientific journals recommended for publishing the main scientific results of dissertations for getting degree and academic title by The Committee for Quality Assurance in the Field of Science and Higher Education.

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HISTORICAL BACKGROUND OF PERSONALITY-ORIENTED EDUCATION

Abstract

Modern pedagogy owes much to the philosophers and thinkers of the past. A person's cognitive search has long-standing roots. The search path ran through many spheres of philosophical, pedagogical, psychological, social, humanitarian, and natural research. Thanks to the era of globalization, expansion in the cognition of the human world, and the change in the basic spheres of mankind, education has given a full impetus to the world of education.

The theoretical and methodological understanding and practical implementation of personality-oriented education in the modern education system is one of the strategic priorities. It is recommended to analyze the main ideas in modern research on this problem, based on which the relevance of personality-oriented education in terms of changing the goals and paradigms of education. This research paper aims to make an analysis of the problems and historical background of personality-oriented education, which can guide in a thorough and purposeful implementation of personality-oriented education teacher training.

This study used the literature review method. Pedagogy and psychology of different historical periods and personality-oriented learning were considered from different perspectives.

World conditions created prerequisites for updating the theory and practice of pedagogical education, and new technologies were used in the preparation of future teachers. The article considers the historical prerequisites of personality-oriented education. Therefore, special attention is paid to the historical significance of personality-oriented education.

Keywords: personality; education; upbringing; teacher; student.

Introduction. The theory and practice of training are directed to the formation and development of personality by social needs. The liberalization of political and social life in recent years has led to freedom of creative activity and has had a certain impact on education. Personality-oriented education is a student's personality in the educational process, his/her uniqueness, and a kind of learning that is of high value. During the learning process, which values this type of education, the student has a pleasant environment for teaching, develops his/her abilities, and creates prerequisites for the overall learning outcomes.

Personality-oriented education, also known as student-centred education, is an approach that places the learner at the center of the educational process. This method contrasts with more traditional teacher-centred approaches, where the educator holds the primary role in imparting knowledge (Zhang et al., 2023; Kinuthia 2023).

Conceptual background. The main part deals with questions on this issue regarding the views on the Ancient World and the Middle Ages, the views of the Renaissance, the views on Russian and Kazakh pedagogy, and the origins of a personality-oriented approach.

Views on education varied significantly between the Ancient World and the Middle Ages, and these perspectives influenced approaches to personality-oriented education. In Ancient Greece, Plato and Aristotle had differing views on education. Plato's "Republic" proposed an education system that segregated individuals based on their perceived abilities, with a focus on producing a harmonious society as Dumont & Ready (2023) shared the same view of education in their research. Aristotle emphasized individual development through the pursuit of virtue and knowledge, promoting a more balanced and holistic education. Ancient Roman education was primarily focused on preparing citizens for their roles in society. Education was tailored to

their social status and future responsibilities. In the Middle Ages, education was often provided by religious institutions. Monastic education emphasized religious devotion, to prepare individuals for a life of piety and service. The scholastic movement emphasized the integration of faith and reason. Education was centred around religious studies and theological debates. Education in the Middle Ages was highly hierarchical. Education was primarily available to the nobility and clergy, with limited access for commoners. Education focused on practical skills needed for specific roles within the feudal society. Both eras had limitations in terms of offering comprehensive personality-oriented education due to societal constraints and unequal access to learning. However, the seeds of personalized education could be found in certain philosophical viewpoints. The modern development of personality-oriented education draws from these historical ideas while adapting to contemporary values, methods, and social realities.

The Renaissance brought about a significant shift in educational philosophy, emphasizing humanism, individualism, and a renewed focus on the potential of the individual. These new perspectives had a profound impact on education and contributed to the emergence of personality-oriented education. In essence, the Renaissance views on education shifted the focus from a solely religious or societal agenda to the potential and well-being of the individual. This marked a pivotal point in the evolution of education toward more personality-oriented, learner-centred approaches that continue to influence educational philosophies and practices to this day.

Both Russian and Kazakh pedagogy have evolved with their own cultural, historical, and philosophical influences. While there are similarities in their views on personality-oriented education, there are also distinct nuances that reflect their unique educational traditions. During the Soviet era, education in Russia emphasized collectivism and ideological conformity. However, there were still efforts to nurture individual talents within the framework of state-driven education. Historically, Kazakh education was influenced by the nomadic lifestyle, with an emphasis on practical skills, survival, and communal values. Contemporary Kazakh education places importance on preserving Kazakh culture, language, and values while integrating modern knowledge and skills. Given Kazakhstan's multicultural environment, bilingual education (Kazakh and Russian) is common, emphasizing linguistic and cultural diversity. Both Russian and Kazakh pedagogy have evolved from traditional models to embrace more learner-centred, personalized approaches. Both emphasize the importance of cultural identity, values, and heritage within education. In both cases, the shift towards personality-oriented education reflects an understanding of the importance of nurturing well-rounded, culturally aware individuals who are equipped to succeed in an interconnected global society.

The personality-oriented approach indeed has its roots in humanistic psychology, which emerged as a distinct branch of psychology in the mid-20th century. Humanistic psychology represented a departure from the predominant behaviourist and psychoanalytic perspectives at the time. Humanistic psychology focuses on understanding the unique qualities and potential of individuals, emphasizing their subjective experiences, personal growth, and self-actualization. This approach laid the foundation for a more person-centred and holistic view of human development and education. Maslow's hierarchy of needs and concept of self-actualization highlighted the innate human drive for personal growth, fulfilment, and realizing one's potential. His ideas encouraged educators to create environments that support students' individual needs and aspirations. Rogers introduced the concept of client-centred therapy, which later influenced education. His emphasis on empathy, genuineness, and unconditional positive regard became central to the personality-oriented approach in education. He believed that students should be treated as partners in the learning process, fostering their autonomy and self-worth. The person-centred approach, pioneered by Rogers, emphasized the importance of creating a supportive and empathetic environment where learners' feelings, thoughts, and experiences are valued. This approach focuses on helping students develop self-awareness, self-esteem, and a sense of

agency in their learning journey. The humanistic psychology movement contributed to reshaping educational practices by advocating for student-centred classrooms, focusing on the individual's self-worth and growth, and recognizing the importance of a positive and supportive learning environment. The personality-oriented approach in education draws inspiration from these humanistic principles, aiming to create learning experiences that nurture students' holistic development, self-actualization, and a sense of purpose.

Main part. The historical background of personality-oriented education is rooted in various educational philosophies and movements that have emerged over time. Here are some key milestones and influences:

Progressive education movement (late 19th - early 20th century): This movement, led by educators such as John Dewey, emphasized learning through experience and student engagement.

Montessori method (early 20th century): This method, developed by Maria Montessori, focuses on the child's natural curiosity and desire to learn. It promotes self-directed learning and a personalized pace by emphasizing a prepared environment in which students are free to pick activities that match their interests. This movement has proven very efficient to date as researched by Chen & Guo (2023) discovered Montessori students had some statistically significant better-score executive function indexes than non-Montessori students.

Reggio Emilia approach (1940s - Italy): Emerging in Italy after World War II, this approach emphasizes creativity, collaboration, and the role of the environment in education. It views children as capable and active participants in their learning process, encouraging self-expression and exploration.

Humanistic psychology (1950s - 1960s): figures like Abraham Maslow and Carl Rogers contributed to the humanistic psychology movement, which emphasized the individual's self-actualization, growth, and autonomy. These ideas influenced education by promoting a focus on students' emotional and psychological well-being.

Constructivism (late 20th century): Constructivist theories, including those of Jean Piaget and Lev Vygotsky, emphasize that learners actively construct knowledge through interactions with their environment. This view has driven educational reforms towards more interactive and inquiry-based teaching methods.

Cognitive psychology and multiple intelligences (late 20th century): The work of Howard Gardner on multiple intelligences challenged traditional views of intelligence. This perspective recognizes diverse ways in which individuals learn, leading to more personalized and differentiated instruction.

21st-century pedagogies: Modern education has increasingly embraced individualized and technology-enhanced learning as a result of the advent of digital technologies and worldwide connectedness. Adaptive learning platforms and online resources enable personalized learning experiences (Otto et al., 2023; Li & Wong 2023).

A global shift towards inclusive education: The emphasis on inclusive education has led to a greater focus on individual needs and learning styles, ensuring that education is accessible and meaningful to all students.

Overall, the history of personality-oriented education demonstrates a shift away from teacher-led learning and toward student-centred systems that value individual growth, creativity, critical thinking, and the formation of well-rounded, self-sufficient persons. This method is consistent with the notion that each learner has distinct needs, interests, and the ability for self-directed learning.

Yakimanskaya (1995) relies on a variety of methods in her research on the development of personality-oriented education technologies. The author proceeds from the subjective experience of the student as an independent source of psychological development in developing the model. Models of personality-oriented pedagogy are conventionally divided into three main groups: socio-pedagogical; subject-didactic; and psychological.

The following authors say that theoretical and methodological understanding and practical implementation of personality-oriented education in the modern education system is one of the strategic priorities. They confirm the existence of conceptual approaches to solving this problem in the psychological and

pedagogical sciences in this research work (Jumagalieva et al., 2014).

It is recommended to analyze the main ideas in modern research on this problem, based on which the relevance of personality-oriented education in terms of changing the goals and paradigms of education. The problem is opened in research work based on the psychological theory of manifestation of the personality. The concept outlined in the research paper will help to make a thorough and purposeful selection of teaching for the implementation of personality-oriented education teacher training (Smoleusova, 2016).

The research that analyses the implementation of the concept of activity-oriented education in higher education institutions suggests that the modern educational process should be based on the following principles: sequence of responsibility formation as a property of a student's personality; development of creative potential, education of independent thinking; formation of abilities for self-learning and self-development (Bikbulatova et al., 2018).

The problems of personality-oriented education considered an educational component of doctoral training at the Technical University, are analyzed in research work. The authors attach particular importance to the pedagogical model of the problem in this study (Korchagin & Safin, 2019).

The lack of professional competence of graduates of higher education institutions largely leaves the desire of employers. Therefore, it is important to improve the educational process and change the methodological system of education. The effectiveness of personality-oriented education is reflected in the research experiment and indicates that an individual approach to each student contributes to the development of their professional competence (Saveleva, 2019; Man et al., 2021; Thiel 2020).

In addition, special attention can be paid to works that consider the concept of meaning in the context of student-centred education (Volkova, 2014), personality-oriented technologies for university teachers' qualification raising system (Sysoeva, 2014), improving the military vocational training of Cadets at Military Institute (Bychenko & Balandina, 2019).

Purpose of study. It should be noted that the work on the analysis of the problems and historical background of personality-oriented education is not covered. Therefore, we want to reveal the essence and content of the historical background of personality-oriented education and fill these gaps in this work.

Materials and methods. *Data collection.* The methodological and theoretical foundations of the research are the works of scientists written on the topic. In particular, the dialectical method of cognition allows examining the form of study at different levels. Personality-oriented terms of historical background and some of the issues regularly can be identified while using the structural and logical model. Historical terms are considered from the context of the educational, social, psychological, and philosophical principles in this method. This model is a synthesis of all types of analysis. The logic of these key results is reflected in the following methods: structuring and systematization. The issues of the humanistic paradigm of the person in the educational process through the pedagogical and psychological methodology, as well as, issues of education and upbringing as the basis of personal development, and preparation of citizens to the developing person are cited in this article. Philosophical methodology, personality-centred education through historical study of the initial conditions of the basic principles of dialectical concepts defined in all areas of value, general communications, research, and development, the formation of which is determined by the relationship between types of empirical and theoretical scientific knowledge of the discipline.

Data analysis. Personality-oriented teaching of historical, educational, social, and psychological conditions and summarized, aggregated, and as a philosophical understanding of the basic concepts. At the same time, the principles of objectivity, historicity, and regularity were taken into account in the methods of complex research (Sbeglia et al., 2021). The use of these methods allowed the authors to consider the historical background of personal-oriented teaching in a retrospective and historical sequence.

Results and discussion. *Views of the Ancient World and the Middle Ages.* In Ancient epistemology, there was a place for pedagogical research. Ancient thinkers of different schools participated in the discussions; many of them

were teachers themselves. For example, Socrates discovered Maieutics (Socratic Method), the method of extracting the hidden knowledge in man by setting skilful guiding questions.

His disciple Plato, who opened his academy in Athens, represented knowledge as an anamnesis (remembrance) of the soul about the ideas that he contemplated before joining with the body. Love of ideas is the motive behind the search for a person's spiritual ascent. Apprentice of Plato Aristotle, becoming the father of syllogistics, discovered the main instrument of knowledge in logic (Edalina, 1998).

Heraclitus, Democritus, and Epicurus adhered to the point of view according to which the process of human education is decisively influenced by external conditions. Education rearranges the person and is second nature. Socrates, on the contrary, believed that the human mind is directed towards good and truth, education should destroy only the contradictions between the social and personal (emphasis on "personal" will deprive the person of harmony).

Plato, as a disciple of Socrates, believed that the nature of man, his nature is woven from good and evil, and natural predisposition is paramount in the education of the individual. Education on Plato is a way of influencing a person, consisting of overcoming the contradictions inherent in nature.

The personality-oriented concept of the state, created by Aristotle, a disciple of Plato and influencing the system of ancient education, was also based on the theory of natural predisposition, on which imparted skills and received education are imposed: the natural striving of citizens to fulfil their civil functions is formed by the whole process of upbringing.

Thus, according to two ancient paradigms, either the external influence forms the personality, or the personality itself "sets the benchmarks" for the upbringing process: it is only necessary to overcome the contradictions between the personal and the social or between the good and evil beginnings.

These paradigms also set the "fan of interpretations" of the pedagogical theory, conditioned the possibility of the existence in the pedagogy of contradictory theoretical ideas on the issues of education and training at all stages of historical development, up to the present day.

The formation of a personality-oriented approach is inseparably linked with the names of ancient thinkers who initiated the development of the idea of a comprehensive and harmonious development of the individual in pedagogy. However, the dualism of upbringing, which existed in ancient society and was conditioned by socioeconomic factors (in particular, by the stratification of ancient society) limited this idea, narrowing it down to striving for physical perfection: the ideal of a "harmonious personality" required neither spiritual wealth nor moral purity (Tsyrenov, 2016). Different views have developed ideas about personal development. Because every idea lies in the formation of a citizen who values public values.

In the Middle Ages, the source of spirituality was God, who gave man strength on the path to knowledge. In opposition to public opinion, Professor of Oxford University Roger Bacon called for an experimental study of nature, for which he was imprisoned in a monastery prison. R. Bacon attached great importance to the knowledge of both the scientific experiment and the internal "illumination". Later, his great compatriot Francis Bacon, the founder of English materialism, distinguished three ways of knowing: "the way of the spider" (speculation), the "way of the ant" (practical collection and classification of facts), and the "bee's way" (combination of theory and practice) (Edalina, 1998).

Religious aesthetics of the Middle Ages did not require an aesthetically and physically developed personality. Positively assessing the ancient Greco-Roman education, the pedagogy of that era gave priority to the moral, spiritual, and evangelical principles. The orientation towards the personality of the pupil was manifested in associating with the class morality, in the transfer of experience of the medieval corporation, which was formed by the system of education. Thus, the specific character of upbringing and education was determined by the existence of the practice of apprenticeship (discipleship): the teacher is a link in the chain that facilitates the integration of the pupil into a particular estate clan. Medieval university teacher (professor)

was considered responsible for the student but at the same time learning about "liberated" the freedom to hold weekly discussions. These strokes indicate a certain shift in the paradigm of the relations considered "teacher-learning process-student" to the cognitive (knowledge) competence of the teacher. Thus, the vector of personal orientation shifted toward the teacher, although some relative freedom was granted to the student (Tsyrenov, 2016). Of course, in the Middle Ages, religious thought did not allow us to think differently. That is why we can explain the limitations of the person-oriented teachings in this situation.

Views from the Renaissance. Since the 15th century, many social changes have taken place in the socio-economic life of Western Europe, and this historic period has been named Renaissance. The main feature of this period is the removal of all ideological systems from the spiritual and religious values and turning them towards the natural needs and interests of people. In the XVI century, the Renaissance culture dominated, based on humanist ideas in all Western European states. Representatives of the humanist sphere of medieval scholastics have studied the relationship of man, not to God, to other citizens, to the state, and society. Therefore, the beginning of the Revolutionary era as a socially significant person has led to the emergence of many scientific discoveries and inventions, and the best works of art. Humanistic ideas have been reflected in life.

The ideas of humanistic education, the purpose of which was the spiritual and bodily development of the individual, became widespread in the Renaissance. If in medieval pedagogy the child is most often seen as a small copy of an adult, now they are trying to discern the natural individuality. Thus, according to the judgments of Michel Montaigne, the student turns into a person not so much due to the knowledge gained, but by developing the ability to make critical judgments. The principle of individuality proclaimed by the Reformation era had important consequences for a personality-oriented pedagogy, which became the central object of the process of upbringing and education (Tsyrenov, 2016).

Under the banner of will and mind, the search for the meaning of life in the epoch of epistemology was carried out. Hegel saw the starting point of development in the ability of man to know "himself" through mastering the "wealth of images of the world spirit". The principle of the unity of dialectics, logic, and the theory of knowledge discovered by Hegel was used by the classics of Marxism (Edalina, 1998).

It is said that the process of education and upbringing should be based on the age and individuality of children in the pedagogical system of Great Czech teacher John Amos Comenius. At the same time, he encourages the effective use of the pedagogical control system during such activities (Dent, 2021).

The historical dynamics of the issue in the considered periods were manifested in the expansion of the relations between the teacher and the trainee within the framework of the triad: "Nature (Society) ↔ Personality of the student ↔ Personality of the teacher". Jean-Jacques Rousseau believed that the primary task of the teacher is the moral education of man. The initial condition for the emergence of personality, he believed is dualism, manifested in the freedom of choice between good and evil (immoral society disfigures the person). This was a logical development of the ideas of previous humanist teachers shifted the accents in the triad: "Society (Nature) ↔ Personality of the student ↔ Personality of the teacher".

In the XIX century teachers-democrats Slovensko, Herbart, Diesterweg, Fröbel, Pestalozzi, Nedožier & Basilius (n.d.), under the influence of the pedagogical ideas of the French enlighteners, developed the humanistic teaching about education. But since initially philosophical thought "nourished" the pedagogical, then perhaps the clearest problem of personality was formulated by representatives of philosophical irrationalism. The ideas about the education of the "individual" with independent judgments and abilities for criticism (Kierkegaard), the denial of qualitative changes in the natural essence of the human personality, and at the same time the encouragement of the desire to become better (Schopenhauer), the upbringing of the moral personality (Nietzsche) shift the dyad vector aside: "The Personality of the Educator" (Tsyrenov, 2016).

Developing goals and objectives of education and upbringing formed the basis for the Swiss teacher J.H. Pestalozzi, theory of elementary education (Sellars & Imig, 2021). The goal of elementary education is to give the child the basic concepts based on which it is possible to build and develop knowledge about the world around him. According to Pestalozzi, not only do circumstances affect the upbringing process personality, but the personality also refracts the circumstances. The orientation towards the personality of the student is manifested in Pestalozzi in his idea of naturalness, in the development of the forces and inclinations of the human heart, the human mind, and human skills. The desire to become an individual of activity is the beginning of the development of the personality, and the teacher must provide this process.

The will of the person is the center of the whole process of education and another outstanding teacher, psychologist, and philosopher, Herbart states that the priority of education is found in the will of the individual, based on individuality. It is at Herbart that we observe the most complete and deep concentration of the whole process of education on the individual, which is also relevant for the modern study of the issue (Tsyrenov, 2016).

Views in Russian and Kazakh pedagogy. In Russian pedagogical sciences, there are also works related to personality education. In such researchers' works as V.G. Belinsky (Shkolnikov, 2021), A.I. Herzen (Blokhin, 2021), K.D. Ushinsky (Kozhevnikova, 2022), N.G. Chernyshevsky (Chan, 2023), L.N. Tolstoy (Castro, 2023), N.A. Dobrolyubov (Viktorovich, 2020), P.F. Kapterev (Smirnov, 2020), etc. we can see that there are theoretical and pedagogical principles of personality attitudes towards children.

Belinsky (as cited in Shkolnikov, 2021) raised the issue of pedagogy in his work "Thinking" ("Discourse: Good education is most needed for young people") published in 1829. In this work, though it does not have the ideas and understanding of the human being, it is inherent, the desire for passion and cognition. In this work Belinsky (as cited in Shkolnikov, 2021) pays special attention to the issue of upbringing, saying: "Under the influence of discipline, a person can be as deep-hearted and good-natured as Socrates or predator like Neron".

The main problem of A.I. Herzen's (Blokas cite in Blokhin, 2021) pedagogical views and ethical doctrines is the relationship of the person with the society. He argues that human relationships should be based on humanity with members of the environment. Moral relationships were based on love and respect for humanity. That is why friendship between people is explained as a prerequisite for the unity of ideas, positions, and views. He says that the younger generation should be treated with respect for future citizens. That is why children do not only need love and respect but also need sensual and humble care. According to Herzen, in each era, every state, community, and family should be educated.

The great Russian pedagogue Ushinsky (as cited in Kozhevnikova, 2022) emphasized that under the "name of humane education, one must understand the development of the human spirit in general and not just one formal development" and that "the main goal of the education of man can only be the man himself since everything else in this world exists only for man". He revealed the role of personality in social, scientific, and technical progress, proving that only proper education can multiply physical, moral, and intellectual forces. From the standpoint of anthropology, which he understood broadly, as the totality of several sciences, Ushinsky (as cited in Kozhevnikova, 2022) solved the question of the role of heredity, environment, and education in the development of the human personality. The pedagogue needs to know as much as possible about his pupils, to study the properties of their personality, and their characteristics, to "draw in the very nature of man the means of educational influence" (Tsyrenov, 2016).

V.G. Belinsky, A.I. Herzen, and representative of the German classical philosophy L. Feuerbach had a great impact on N.G. Chernyshevsky's worldview (Chan, 2023). In his works, he tried to substantiate the pedagogical theory in a materialist and dialectical manner. In his opinion, every living thing is matter and cannot be without matter. At the same time, the philosopher has the idea of unity between the human body and man's mental activity. Continuing her ideas on the patriotic education of his contemporaries, he

paid special attention to the role of labor in moral education.

In the pedagogical theory of L.N. Tolstoy (as cited in Danilova, Orekhova & Shaidenko, 2021), the idea of free education takes a special place. These ideas are closely linked to his philosophical-ideological and political views. The thinker considers that a person should form his ideas and attitudes freely, not through compulsion or force. And adolescents say that natural perfection and high moral qualities are characteristic. Therefore, pedagogical research of the thinker according to changes in the social and spiritual life of modern society does not lose the relevance of the upbringing of the younger generation, and democratization of the sphere of education.

Although Dobrolyubov (as cited in Viktorovich, 2020) lived less; he left a very rich literary, critical, social, and pedagogical heritage in connection with the democratization of public consciousness. He refuses to abstain from authoritarian upbringing in his writings; he needs adolescents to show respect and to respect the child's identity. Only in such a way, the children are awakened in creative abilities, have their initiative, and have the courage to think and act. In his writings, he calls for the education of a well-educated citizen who is a patriot and a highly educated person, with strong convictions. He encourages the development of persistence in teaching and education, the development of all the spiritual forces of the child in the right direction, and in the personality and the unity of actions, words, and actions.

P.F. Kapterev (as cited in Smirnov, 2020) strives to create psychologically justified didactics during his pedagogical research. He analyzed the didactic issues such as the purpose and objectives of the training, the choice of subjects, and the coordination of the course subjects, and teaching methods. In his fundamental works, he identifies such issues as physical, moral, aesthetic, labor, mental education, behavior, attention, memory, will, and logic. He attaches great importance to family education in his numerous scientific works. He is one of the founders of the family education theory as an integral part of the pedagogical process.

When analyzing the history of Kazakh pedagogical thinking one can find approaches to personal-oriented learning in Sh. Valikhanov's works (Uderbayeva, 2023), I. Altynsarin (Aleshina, 2019), A. Kunanbayev (Barlybayeva, 2020).

Public progress is of particular importance in the educational views of Shokan Valikhanov. He sought to protect the rights of his people, believed in the historical future of the country, and linked progress. According to the scientist's judgment, knowledge alone can give people the strength and the basic means of improving people's well-being.

The great teacher, educator, father of Kazakh children's literature, the teacher of the Kazakh people I. Altynsarin (as cited in Alimkhanovich, 2022). has a special place in Kazakh pedagogy. He viewed education as a means of active struggle not only for personal care but also for changing the social environment. According to the enlightener, the school needs a genuine education that will enable the student to achieve the goal of intellectual development and human well-being.

Abai Kunanbayev (as cited in Alimkulovna, 2021) said that for the first time among Kazakh educators, it is necessary to take into consideration their age and psychological peculiarities in the process of their upbringing. The poet testified his theoretical and practical approach to training and education of the younger generation, based on the advanced principles of pedagogical thinking, both past and present. He pointed to the traits that characterize the good and the bad when it comes to moral and moral issues in his work. Good qualities are goodness, loyalty, justice, gentleness, friendship, education, labor, deep-rooted feelings, courage, generosity, courage, loyalty, compassion, gentleness, love, indulgence, dignity, calmness, perseverance, persistence, peace, thanksgiving, so on. Characteristics of evil features are hateful, immoral, dishonest, blameless, corrupt, haughty, greedy, dishonest, gluttony, dishonest, immoral, dishonest, cunning, gentleness, fidelity, frivolity, pride, ignorance, pride, elegance, lustfulness, slander, slander, pride, fidelity, cruelty, forgiveness, disobedience, and so on.

The origins of the personality-oriented approach. The origins of a personality-oriented approach lie in humanistic psychology, the

branch of psychological science that arose in the 1950s as a "third force" in psychology, opposing two already existing areas. They are behaviorism and psychoanalysis. A movement for the development of human potential, the recognition of its unconditional value, and the use of the organism's internal experience for studying and changing its personality arose based on humanistic orientation. Let us turn to the ideas of the founders of this trend in psychology (Nikitina et al., 1998).

Maslow (1954) was recognized as an outstanding representative of the humanistic trend in personality. His theory of self-actualization of the personality clearly shows the basic ideas and positions characteristic of humanistic psychology: human life can be understood only after taking into account its highest aspirations: growth, self-actualization, the pursuit of health, self-regulation, effective functioning, the search for identity and autonomy, the thirst for beauty as an aspiration "upwards", the presence of uniqueness and huge personal potential for development. According to A. Maslow, it is necessary first of all to realize the uniqueness of being a person existing at a particular moment in time and space. And every person faces the task of filling their lives with meaning. But it emphasizes that people themselves are responsible for their choices, which they do (Nikitina et al., 1998).

Maslow says that self-actualizing people have the following characteristics: a more effective perception of reality; accepting themselves, others, and nature; immediate, simple, and natural; focus on the problem; independence, the need for privacy; autonomy: independence from culture and the environment; freshness of perception; mystical or vertex experiences; public interest; deep interpersonal relationships; democratic nature; delineation of funds and goals; creativity; resistance to acculturation.

One more representative of humanistic psychology, American psychologist Rogers, points out that in his human nature, he expresses his constructivism, sincerity, and confidence in achieving the goals he has identified. According to the scientist, a person is an active creature who strives for personal goals and can achieve them.

He established five basic personal characteristics common to a fully functioning person: Openness to experience; The existential way of life; Organic confidence; Empirical freedom; and Creativity. This is the desire of man to live constructively and adaptively in his culture while at the same time satisfying his own deepest needs. Such people can adapt creatively and flexibly to changing conditions in their environment. Their connection with society can be expressed as follows: they are members of society and its products, but not its captives (Nikitina et al., 1998).

Conclusion. As the research shows, the historical background of personality-oriented teaching involves long historical periods. This article covered principles that are the historical prerequisites of personal-centred teaching. By analyzing the research materials, you can make the following conclusions on the subject:

1. From ancient times, the development of personality was related to nature. It is worth mentioning that there are opposing views on this opinion. Therefore, there is absolutely no basis to say that the nature of the human being's personal development can be influenced by nature and that the struggle for the principles that go beyond the natural world begins with the ancient.

2. The Historical review focuses on the development of a person who values the values of society regardless of the standpoint of each stage. The role of school in personal development is high. The principles of the relationship between the teacher and the student have always been reflected.

3. Learning and upbringing are joint processes. Some thinkers also have the potential to bring up their upbringing in the educational process. There are a lot of educational spheres that the thinkers will consider: humanistic, physical, moral, mental, aesthetic, labor, family, etc.

4. Training is needed not only for education but also for the development of personality and creative potential. The main factors that contribute to a human being's personality and personality, which are in the process of various actions, are genetic peculiarities, environment, cultural and social impact, and personal experience. The signs of the development of creative qualities include the need for new ideas; the ability to create alternatives through suspicion; hopefully looking into the work;

and showcasing the proposed object in a new aspect.

5. Studying the inner motivation of the student in learning, his interests, and abilities. Learners' education is inextricably linked to their cognitive and social drives. Education interests are based on general, specific, and subject specificities. It is necessary to pay attention to the ability of young adults to acquire skills such as their imagination, the imagination of their imagination, the development of their innermost thoughts, and the representation of their ideas.

6. We would like to supplement the content of the training with cognitive tasks. The problem of cognition has come from ancient times. Throughout the learning process, students develop their thinking skills by providing cognitive assignments.

In our opinion, a deep study of the views of philosophers, thinkers, and scholars of the past has prevented conceptual and ideological errors in pedagogy. Based on science and creativity, there are new developments in research in pedagogical sciences and education.

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TRADITIONAL ECOLOGICAL KNOWLEDGE OF THE KAZAKH PEOPLE AS A PREREQUISITE FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT

Abstract

Nowadays, environmental education is being transformed into education for sustainable development (ESD). The concept of sustainable development is a necessary condition for the continuation of life on Earth. The knowledge of the environment of Kazakh people includes a deep knowledge of the state of the climate, the spatial laws of climatic processes, and atmospheric phenomena. From the point of view of ethnic Genesis, the concept of space of people is reflected in the spiritual culture, and their traditional worldview is the basis of public consciousness. The developed spatial understanding of the Kazakh world can be traced both through its economic organization and through the toponymic system of space.

The purpose of this article is to analyze and demonstrate deep knowledge of the Kazakh people about climatic conditions as a result of their adaptation to harsh environmental conditions. Of particular interest is knowledge in the field of forecasting weather conditions, which is an indicator of the traditional knowledge of residents who have long had a nomadic lifestyle. As the experience of classical nomads shows, very important environmental knowledge was required to adequately organize nomadic herding. To adapt to these environmental conditions, a very large minimum amount of information was required, and the quality and volume of knowledge could only be subjected to transmission and accumulation from generation to generation over a very long period of history.

Quantitative data were analyzed and interpreted using descriptive statistics. The literature review was conducted based on the recommendations of the PRISMA methodology.

A lot of literature is written about the importance of the environmental experiences of our people. Therefore, in the context of globalization, it is important to awaken the national consciousness to stop the actions that lead to environmental destruction and climate change, that is, to use the experiences of the ancestors of each nation to preserve the habitat.

Keywords: ESD, traditional ecological knowledge, adaptation to the environment, knowledge of the environment, worldview of the Kazakh people.

Introduction. The 17 Sustainable Development Goals adopted in 2015 assume the fulfillment of important tasks in the environmental, economic, and social spheres. The objectives of SDG - SDG-15 conservation of terrestrial ecosystems include ensuring the conservation, restoration, and rational use of terrestrial and inland freshwater ecosystems and their capabilities, including forests, wetlands, mountains, and drylands, by obligations arising from international agreements (United Nations, 2017). Also, paragraph 15.2 emphasizes the promotion of rational use methods, 15.3 combating desertification and striving to ensure that the condition of land does not deteriorate worldwide. Achieving sustainable development is a necessary condition for the continuation of life on Earth. ESD has been recognized as a key tool for achieving sustainable development and raising public awareness and understanding of SD principles (United Nations Educational, 2022). Nowadays, environmental education is being transformed into education for sustainable development (ESD) (Abu et al., 2023). Environmental education has been formed for centuries from the experience of ancestors to preserve the environment and also learning of traditions to preserve the richness of

culture which is expressed in their way of life and architectural landscape as seen in Asia and The Middle East (Hu et al., 2021; Sengupta & Ghosh 2019; Yang 2023; Waheeb 2023). In this article, we want to emphasize the importance of the traditional knowledge of the Kazakh people for the education of the future generation and the achievement of the above tasks.

The problem of public safety, natural disasters, catastrophes, and other natural disasters has been familiar to mankind for millennia (Abdimanapov 2012). Traces of past destruction are recorded in written and oral sources. The memory of individual disasters and destruction is passed on from one generation to the next. Throughout the history of mankind, the evolution of the world of hazards has undergone changes, which were primarily determined by the existing system of natural resource management, the number of people, and the attitude of people toward dangers and nature in general (Kaimuldinova 2010).

During the period of gathering and hunting, the threat was mainly natural hazards: temperature, precipitation, strong winds, lightning, etc. At that time, people showed great interest in the environment, especially in its "vagaries", i.e., disasters and catastrophes (Kusumastuti et al., 2022). They were particularly concerned about the weather conditions because everyday life depended on them (Vilesov et al., 2009; Grecequet 2023). Ancient people, including modern ones, tried to control the weather through various magical spells, rituals, and sacrifices. Later, the vagaries of the weather began to be attributed to the will and actions of the gods. So, each ancient people had their weather gods.

Main part. Many ethnic groups, including the Kazakh people, have developed and maintained their ethno-cultural peculiarities in adapting and managing dangerous unfavorable phenomena. The management of natural hazards was based on the vast experience of the Kazakh ethnos, whose main occupation was nomadic and semi-nomadic cattle breeding (Berg 1947, Murzaev 1982). Strategically, the main examples of loss reduction were the selection of the least dangerous territories, the use of rapidly constructed buildings (yurts), and the forecasting of episodic and short-term adverse natural hazards by folk omens.

The purpose of this article is to analyze and demonstrate deep knowledge of the Kazakh people about climatic conditions as a result of their adaptation to harsh environmental conditions. Of particular interest is knowledge in the field of forecasting weather conditions, which is an indicator of the traditional knowledge of residents who have long had a nomadic lifestyle.

Materials and methods. In this study, traditional knowledge was studied. We have used many approaches to collect data. Quantitative data were analyzed and interpreted using descriptive statistics. In this regard, the usual rules and traditions of our people were used as a method of conservation to preserve and protect natural resources.

The literature review was conducted based on the recommendations of the PRISMA methodology proposed by Moher and others (Moher et al., 2009). According to this methodology, the advantages of systematic analysis and meta-analysis are primarily taken into account, that is, the search for research materials focuses on the keywords used in the study.

Results. We analyzed scientific articles on this topic and made sure that other countries are also engaged in the collection and preservation of traditional knowledge. For example, it is written about traditional ecological knowledge that it is the initial agreed knowledge, and Western social sciences - as areas that can best define and describe norms and models of how to engage in conservation (Hatfield et al., 2023). It should be noted that traditional ecological knowledge is becoming increasingly important since it can help in ecosystem management (Singh et al., 2020; Souther et al., 2023). TEK is becoming increasingly important in ecology and related disciplines. In particular, the Intergovernmental Panel on Biodiversity and Ecosystem Services explicitly recognizes the importance of the fuel and energy sector for sustainable ecosystem management, thereby elevating its status from a secondary topic to a central concept that environmentalists and conservationists can no longer ignore. TEK has been defined as "a cumulative body of knowledge, practice, and beliefs that develops as a result of adaptive processes and is transmitted to other people" (Hartel et al., 2023).

It is increasingly recognized that traditional ecological knowledge (TEK) is vital for inclusive assessments of nature and nature's linkages with people. Recent tough challenges brought about by the need to address global environmental risks, such as climate change and biodiversity loss, call for us to carefully revisit social-ecological systems in ways that connect human beings and nature at many levels and dimensions. TEK reflects a long history of natural resource management by local people based on their accumulated observations and experiences, and it not only helps local people, but outsiders, to respond and adapt flexibly to ecological or social disturbances while taking into account carefully crafted local rules. Thus, an extensive body of research has explored how TEK can guide the design and implementation of policy programs that aim to further strengthen the resilience of social-ecological systems to increased vulnerability and uncertainty due to global changes by carrying out theoretical research, case studies, and systematic literature reviews across various countries (Matsushita et al., 2023).

Also, in Ethiopia, the population uses terracing, preventing the formation of ravines and planting local trees on hillsides to restore the damaged ecology. They make a lot of efforts to solve the existing difficulties and dangers, since both the local population, the government, and public organizations are interested in preserving forest ecosystems. In general, encouraging the direct participation of residents in decision-making and the fair distribution of benefits derived from ecosystems can help overcome difficulties and risks to ecosystems (Hassen 2023).

In Kazakhstan, the strict seasonality of economic life required knowledge of timekeeping, which was associated with observations of celestial luminaries. According to the nomads, severe winter is preceded by unfavorable meteorological conditions in summer and autumn. During the summer drought, grass growth is delayed. The grass becomes dry and prickly, to which the horse reacts in the first place. It starts nibbing the tops of the karagan, trees, and even more, shedding the fruit. Kazakhs were most afraid of these signs, as they were a sign of jute, a harbinger of a harsh winter. The weather forecast for the near future was determined by the behavior of a camel, goats, cows, and other animals. So, before a blizzard and frost, the camel "blows its nose". On frosty days, goats and cows turn their heads. Cows return early from pasture before a snowstorm, and return late before the warm weather or stay on pasture all night (Boleyev 2004).

The Kazakhs called the wave of cooling the inclement weather "amal". According to Kazakhs, some "amal" occur every year approximately on the same dates of certain months. There are several such "amals".

Kus kanaty – the last days of March, when the first migratory birds begin to return to the steppe after winter.

Beskonak - rainy days before Nauryz (from March 17 to March 21). This name is widespread in the west of the country, but it is practically unknown in the southern regions.

Alasapyran – unfavorable days for the farm. Early spring, slush in March, and sometimes in April.

Kyzyr Kamshysy is the first April lightning.

Tobylgy jargan – In the last days of April, a cold wind blows, lasting two or three days. This means that the meadow buds have blossomed, that is, the plants have taken root, and the first greenery has appeared.

Kyzyl zhumyrtka is the first decade of May when steppe birds begin to hatch chicks. As a rule, short-term frosts are observed at this time (1-2 days).

Kuralaydyn salkyny is a cold wind at the end of May. During this time, all saigas have time to calve.

Urkerdin batu is the disappearance of the Pleiades in early June. Sometimes they said that the Pleiades fall to the ground. That was considered the beginning of summer. "The earth will not get warm without a nesting of the Pleiades," people say.

Kyryk kun shilde – the heat in June and July, which lasts 40 days.

Urkerdin tolgagi is a comfortable period for cattle. It begins in mid-July when the ground dries up and the grass begins to turn yellow.

Tarazyn tuyy is the time when it gets cooler in the middle of August, the first signs of autumn begin to appear.

Mizam shuak is a warm period that occurs in the second decade of September.

Sumbilenin tuuy is the time when you can see the star Sumbule (Sirius).

Karashanyn kaytuy is a time when the sun warms weaker and weaker.

Kyrbastyn kyzyly – the first frosts in early December.

Tekenin burkagi is a time of severe snowstorms and frosts in the last decade of December.

Kys shildesi – the last days of January – the time when winter came into its own.

Bori syrgak – severe February frosts, when you can see icy lumps of snow.

Thus, the ability to foresee unfavorable natural processes and take measures to reduce their negative consequences has developed as a result of long observations of natural phenomena, particular household arrangements, safe housekeeping, and the transfer of this experience from generation to generation over a long period. The centuries-long experience of nomads should also be used, which has been tested and proved for centuries and centuries.

It was the nomadic cattle breeding economy of the Kazakh people that became the basis of the amazing knowledge of the climate of their territories and their use in practice. "Nomadism should be perceived as a specific form of human adaptation in special environmental conditions, as a way of social functioning in certain ecological niches through nomadic cattle breeding and the corresponding mode of production," and also "Potentially nomadic areas include ecosystems characterized by aridity and continentality of natural and climatic conditions, seasonal productivity, sparsity of vegetation cover." wrote in his work, historian Masanov (2011), who considered the problem of nomadism in Kazakhstan.

The media wants to show the "last nomads" in another video. However, the reality of their way of life, their perception of the environment, and the richness of knowledge and skills developed for survival in natural conditions are unknown to us. Nomads have a deep knowledge of territories, plan routes, and rely on complex inventions and unique ways of being. Even after the unsuccessful experiment of settlement in Soviet times, the practices of nomads seem to some Indigenous peoples as a fundamental element of their culture, a way of life that ensures their stability and autonomy" writes the French researchers (Ferret & Thorez 2013).

The geographical position of Kazakhstan – in the central part of Eurasia in the belt of temperate latitudes - determined the features and nature of natural and climatic conditions resulting from the interaction of the underlying surface, solar radiation, and atmospheric circulation. The duration of sunshine on the territory of Kazakhstan is very long and averages from 2000 to 3000 hours per year. Since the magnitude of the influx of solar radiation varies in the direction from north to south, as well as by seasons, the natural result of this is intense overheating of the earth's surface in the summer, when the amount of total radiation in the south is more than four times the amount of radiation in the winter months (Gorbunov 2008)

The consequence of the intracontinental position of Kazakhstan is the continental regime of climatic conditions, characterized by sharp daily, seasonal, and annual fluctuations in air temperature. The continentality of the climate in Kazakhstan is increasing in the direction from west to east. The greatest continentality takes place in the north-east of Kazakhstan, where the difference in average temperatures in January and July reaches 41 ^{0}C. As we move southward in most of the flat territory, the annual amplitudes of fluctuations in average monthly temperatures are 37-39^0, except in the extreme southern part, where they decrease to 30-35^0.

The daily fluctuations in air temperature are also very large, which in summer average 12-16^0 (25-40% of all days) and often reach 25-30^0, and in winter - from 4 to 12^0 (50-70% of all days), sometimes reaching 16-20^0. The greatest average daily amplitudes of air fluctuations are observed in the north of Kazakhstan in June and July (13-15^0), and in the south - in August and September (18-20^0) (Vilesov et al., 2009).

Another feature of the climate of Kazakhstan is a pronounced aridity. Relative humidity in the north of Kazakhstan is 50-30% and, naturally decreasing towards the south, does not exceed 5% in the desert zone. In the steppe zone located north of 50^0 northern latitudes and comprising more than 20% of its territory, the amount of

precipitation is 200-300mm. In the semi-desert zone located north of 48^0 northern latitudes and comprising more than 20% of its territory, the annual amount of precipitation varies in the range of 160-220mm. In the desert zone (south of $47\text{-}48^0$ northern latitude), occupying more than 40% of the territory of Kazakhstan, precipitation decreases to 180-80 mm per year (Abdimanapov 2012; Kaimuldinova 2010; Vilesov et al., 2009).

Geophysical and climatic conditions determine the diversity of landscapes on the territory of Kazakhstan, grouped into four natural landscape zones (Vilesov et al., 2009). In the northern part, mainly in flat areas, there is a forest-steppe landscape zone characterized by a harsh and continental climate, The maximum average thickness of the snow cover is 30-50 cm and the duration of its occurrence is 150-160 days.

A significant part of the territory of Kazakhstan is occupied by the steppe zone, stretching for 2 200 km from the northern part of the Caspian lowland to the Altai. The climate of the steppe zone is characterized by a dry continental climate, where most of the precipitation (about 50% of the annual norm) falls in the summer. The maximum average thickness of the snow cover is 30-40 cm, and its duration is 140-160 days.

Due to the uneven distribution of snow cover and winter thaws, with the subsequent sharp cooling, the soil in the steppe zone sometimes freezes by 150-220 mm, and prolonged ice sets in.

The semi-desert zone is characterized by a sharply continental, arid climate, hot summers, and harsh winters. The maximum average thickness of the snow cover does not exceed 20-30 cm, and in the east of the zone – 40-60 cm, the duration of its occurrence is 80-180 days. The duration of dry periods without precipitation varies in the summer period in the range of 41-65 days.

Most of plain Kazakhstan is occupied by a desert zone characterized by prolonged hot summers, very cold winters for these latitudes, low precipitation, aridity, significant daily, seasonal, and annual fluctuations in air and soil temperature, lack of surface runoff, accumulation of salts in the upper horizons of the soil, large sandy massifs (Vilesov et al., 2009).

Discussion. Nomads managed to master geographical spaces in the best way, mainly in the process of conducting a year-round economic cycle on different seasonal pastures.

In general, successfully mastering the natural environment, the nomads tried not to cause much harm. Traditional folk knowledge in general and knowledge in the field of biological rhythms, in particular, contributed to the careful treatment of such natural resources by people. Hunters who were relatively better oriented in the landscape of the area, who had a good idea of climatic fluctuations, about the habits of individual animal species, subtly felt it.

Since ancient times, people have understood the peculiarities of nature and managed to adapt to it. The proof is the system of national weather forecasting. Thanks to the formed knowledge about the climate, on a moonless night they could find their way by the positions of the stars, in an impenetrable blizzard they determined the terrain by the grass, predicted the weather by the behavior of animals and birds, and thereby prepared in advance for the habits of nature.

For any Shepherd-Nomad, the priority issue is to have a limited knowledge about the peculiarities of the environment, and the nature of natural and climatic conditions (Lacaze & Thorez 2013).

Names describing the state of the atmosphere such as shape, kempirkosak, kun, ai, and rauan. Accordingly, the names associated with the actions of the people during such processes as the crossing of the paths of celestial bodies, the beginning of cold weather, the freezing of water, the end of winter, and the time of the roe deer, these are tokyrau, togam, togys, the names of months and the names of constellations (Gorbunov 2008).

These signs are the most important psychological category when naming geographical objects. It motivates the choice of a name and explains the reason for the appearance of a toponym. The Kazakh lexicon is unusually rich in description. The manifestation of spiritual culture through oral speech gives the basis for the significance of the word. In a society where oral culture is characteristic, the semantic structure of the word is used as a means of storing and delivering important information.

The ethnic peculiarity of the Kazakh people can be called the art of speaking with a subtext, abstract thinking, embellishment, image, and memorization of what was heard. "Kyrgyz (Kazakhs) can leave cultured people far behind with their ability to remember the environment, people, and terrain." These qualities made it possible to develop a special type of dissemination of dispersed information and preserve the heritage of spiritual culture (Kaimuldinova 2001).

Conclusion. In the conditions of a nomadic lifestyle, people perceived themself in unity with nature and formed a special model of worldview. In general terms, the toponymic system consists of basic characteristics as 1) spatial model; 2) location of a geographical object; 3) basic parameters; and 4) economic assessment.

From this point of view, the steady preservation of Kazakh toponyms suggests that they were a special kind of information. We can be convinced of this by the example of toponyms reflecting hydrometeorological factors and climatic conditions

- Toponyms denoting comfortable climate conditions: Zhylykol (warm lake), Zhylybulak (warm spring), Zhylyadyr (pass in Burabai), Zhylysai (sai ravine, village of Rayymbeksky district), Kungei, Kuntobe, Kunshuak, Kuntugan (Kun - sun), Kalkalykon (wind barrier), Katpasbulak (non-freezing spring),

- Toponyms denoting uncomfortable climate conditions: Kuytinkara (cold mountain), Kishisyrganak (slippery, the pass in hr. Tarbagatai), Karasuyk (severe dry cold, Pavlodar region), Muzbel (ice pass), Muzdykol (Pavlodar region), Salkyntau, Salkynbel, Suykzhal (cool), Taiganak (slippery), Shandy (dusty), Salkynshoky (cool hill), Samalzhota (ridge with light wind), Suyksay (cold gorge), Tastai (cold as a stone).

- Anemonyms (the proper name of natural disasters, including hurricanes, cyclones, typhoons - Wiktionary): Batys zhelder, Zhelsay (windy gorge), Zhelkindik, Zheltal, Zhalgyztobe zheli, Zhelkara, Kagyl, Okpek, Saikan, Uytkyma.

- Meteorological names: Alakar, Karlibulak, Karkure, Karamuzdak (black glacier), Katu (severe), Kyrauly (frost), Sarykar.

Climatic conditions and natural phenomena are reflected in the oronyms, perhaps they are associated with the changeable climate of the mountainous area: Espe (weak wind), Eskeksai (gorge where a light, weak wind blows), Zheldi (windy), Zheldikezen (windy pass), Zheldikara (windy hill). These toponyms may indicate intensive snowstorm transport and large values of wind speed.

All geographical names have a spatial reference and often reflect the nature of the landscape. Toponyms carry information about climatic conditions, and therefore the rich toponymic system of the Kazakh people can be used as knowledge about the environment. Firstly, they show the peculiarities of the Kazakh attitude. Secondly, they carry (address) information in the spatial plan. The Kazakh people put a lot of meaning into the meaning of the word. Through the descriptive component, we can find out the characteristics of the climate or landscape. Since the nomadic society with their a special economy, to survive, had to be very well-oriented in their environment and competently possess knowledge about the climate.

We were convinced that the knowledge is very deep and it is important for us not to lose it. Because there is a threat of destruction of ecosystems. The impact of human activity changes the dynamics of ecosystem processes and services, and some of these effects can manifest themselves in space. Working with indigenous and local knowledge (ILK) is vital for an inclusive assessment of nature and its connections with people (Hill *et al., 2020)*. We claim that Education, including traditional knowledge about the environment, will make a significant contribution to solving this problem. Currently, many countries and organizations have adopted laws and regulations designed to stop the destruction of ecosystems. However, these laws and regulations have not been able to stop the deterioration of ecosystems. Ecosystems are being lost and degraded on a global scale.

Eco-civilization education means that teachers integrate the concept of teaching the creation of ecological civilization into classroom teaching by the requirements of sustainable development in the learning process. Consequently, students can fully understand the relevant content of environmental education, thereby helping students to create an ecological civilizational society.

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CHARACTERISTICS OF FOSTERING AN INNOVATIVE MINDSET IN THE PEDAGOGICAL ABILITIES OF A BIOLOGIST

Abstract

The article explores the potential applications of incorporating elements aimed at fostering an innovative approach within the pedagogical expertise of biologists. This involves honing diverse skills and paying particular attention to seminars, especially when preparing students in the field of biology for pedagogical proficiency. Given the contemporary landscape of digital education, there exists a plethora of opportunities for autonomously addressing developmental needs and requirements.

Adhering to modern demands, it becomes significantly crucial to impart the utilization of innovative methodologies during technology-oriented lessons that strive to impart knowledge of superior quality to society. In pursuit of this objective, the article concludes by studying methods devised by students during seminar sessions. Throughout the lesson, students concentrate on exploring and assessing the extent to which filler words are employed, devising strategies to eliminate them, comparing week-to-week outcomes, and presenting these findings according to a set schedule.

To substantiate these matters with concrete evidence, the article suggests documenting students' efforts throughout several sessions. This documentation encompasses scenarios involving collaborative work, the reinforcement of skills within seminar settings through diverse techniques, drawing attention to the development of focus from the outset of experiments, employing a collection of stickers for reflective analysis, and evaluating the

teacher's language during the conceptual formation phase. As the seminar concludes, a comprehensive summary of the lesson is provided, leading to overarching conclusions and recommendations.
Keywords: skills, innovation, trajectory, pedagogical methodology, attentiveness, proficiency, reflection.

Introduction. The imperative to optimize the education system for the advancement of global civilization is an escalating concern. Achieving alignment with universal cultural values and environmental consciousness necessitates the cultivation of innovative trajectories within educational and developmental paradigms. The custodian of this transformative endeavor is undoubtedly the educator. As aptly articulated by Y. Altynsarin (Tekesbaeva & Tekesbaeva, 2019), a proficient teacher holds paramount significance, for within the crucible of pedagogical practice resides the heart of academia. It is pertinent to note that the purview of effective instruction extends beyond the mere acquisition of pedagogical proficiency, transcending into the realm of authentic self-expression. Manifested succinctly as "Be yourself," this philosophy underscores the educator's ultimate purpose: the holistic cultivation, refinement, and advancement of their students' future (Buzaubakova, 2005).

Central to this endeavor is the imperative of nurturing the pedagogical competence of instructors, with the primary objective being the grooming of students equipped to navigate complex societal interactions and dynamically engage with the contemporary currents of education (Van den Beemt et al., 2022). The conventional archetype of the teacher as a "disseminator of knowledge" has evolved into an orchestrator of the learning milieu, a proficient manager of scholastic dynamics, and an architect of conditions conducive to comprehensive cognition. This recontextualization engenders the notion that students should embark on the journey of self-directed learning. It is paramount to emphasize that this transition does not undermine the pivotal role of educators; instead, it heralds a paradigm shift in their responsibilities. The teacher metamorphoses from a repository of knowledge into a navigator, guiding students through the intricate labyrinth of knowledge acquisition (Nazarova, 2018; Noh & Kim 2019).

Concomitantly, the evolution of educational content hinges intricately upon the artistic prowess of educators in their pedagogical pursuits. A masterful teacher's toolkit encompasses an eclectic array of instructional methodologies. Proficiency therein empowers the educator to deftly convey complex subject matter, adeptly tailor tasks to varying cognitive thresholds, and seamlessly oscillate between traditional and avant-garde pedagogical strategies. Mastery extends to seamlessly integrating instructional tools, and strategically orchestrating tasks to foster inquiry and exploration, thus nurturing students' innate aptitude while fomenting an enduring passion for the subject matter (Bertagina, 2021).

Validation for these propositions is buttressed by the insights garnered from scholarly analyses of educational reforms within the nation. Evidenced by prevailing scientific discourse, educational reforms currently underway underscore the imperative of revitalizing curricular content across all tiers of instruction, transitioning from a trajectory of linear growth to one marked by holistic, sustainable development (Peters et al., 2022). These reforms herald a paradigm shift in instructional methodologies, fostering novel perspectives and cultivating innovative dispositions. This transformative paradigm encapsulates an overarching commitment to pedagogical excellence, demanding both adeptness in implementing evolving standards and a proactive drive to engender qualitative advancements. Recognizing the pivotal role of educators in the transformative evolution of educational content, concerted efforts are directed toward enhancing the pedagogical acumen of the teaching cohort (Teacher's Guide (second edition) "Nazarbayev Intellectual Schools" Center of Pedagogical Excellence. 2015).

Henceforth, in the preparation of students within the domain of biology for the acquisition of pedagogical aptitude, it would be suboptimal to espouse Confucius's dictum: "Tell me, and I will forget; show me, and I may remember; involve me, and I will understand."

Main part. *Purpose of study:* The principal aim of this inquiry is to ascertain the distinctive attributes characterizing the evolution of

the innovative trajectory encompassing the pedagogical competence specific to the realm of biology.

Scientific Significance of the Article. The inherent value of this scholarly exposition lies in the meticulous delineation of the nuanced facets governing the maturation of the pioneering orientation inherent to the pedagogical dexterity exhibited by practitioners within the sphere of biology.

Pedagogical Competence denotes the proficient orchestration of professional duties by a practitioner (Caena & Redecker, 2019). It entails an exhaustive apprehension of the intricacies inherent to the vocation, coupled with an adept mastery thereof at an elevated echelon. Mastery, in this context, constitutes an amalgamation of individual attributes that empowers an educator to execute their professional obligations at an elevated standard.

Talent is the zenith of expertise, representing the consummate amalgamation of human volition and inventive prowess (Gallardo-Gallardo, 2018). Talent exemplifies an intrinsic valuation of the child, culture, and creativity.

Safeguarding the pristine sanctity of the childhood milieu in environmental terms. Proficiently engaging with the curricular content and instructional paradigms. Commanding innovative pedagogical methodologies.

Emanating an educator who cultivates affirmative interrelations within their social milieu, concurrently fostering a nurturing ecosystem conducive to the holistic advancement of the child.

Literature Review. Within the realm of scholarly inquiry, the conceptual underpinnings of creativity have emerged and undergone systematic examination during the 19th and 20th centuries. The essence of creativity is encapsulated in its etymology, signifying an act of revelation or innovation. Creativity is the generative process that engenders both tangible and intangible cultural artifacts (Flanagan, 2021). The personal attributes of creative individuals, the manifestation of innate aptitude and sagacity, and the varying strata of creative capabilities have garnered scientific scrutiny. A spectrum of scholars have delved into the realms of psychological exploration. Notably, within the Kazakhstani context, the contributions of Sabyrov (1999) have probed diverse facets of personality development and creative expression.

Creativity, innately inherent within every individual, becomes particularly conspicuous during childhood, as the youthful mind ardently engages in imaginative play and fanciful ideation. This mode of cognitive enterprise encompasses an array of activities that yield qualitative material and spiritual manifestations, catering to multifarious societal needs. Creative cognition, characterized by novel modes of thinking, engages in the resolution of hitherto uncharted predicaments.

The etymological origins of "creativity" underscore its intrinsic association with invention and innovation. The phenomenon is construed as an elevated form of human agency, encapsulating autonomy and imaginative faculties. However, no standardized formula exists to unearth optimal solutions for the gamut of pedagogical scenarios that educators encounter. Esteemed scholar Zharykbaev & Kaliyev's (1995) affirmation resounds: An individual harboring a creative intellect is one who confronts challenges autonomously, devoid of reliance on pre-established methodologies.

Turgynbaeva (2012), in her monographic elucidation, propounds that creativity constitutes a purpose-driven endeavor with inherently problematized attributes, yielding both tangible and abstract achievements by synthesizing myriad internal linkages. Noteworthy voices in the discipline, have collectively contributed to an explication of creative potential, characterizing it as the repository of knowledge, skills, and behaviors that underpin adaptive responses to novel contexts. It is this resource that spawns innovation and novel outcomes, whilst serving as a conduit for personal development and self-actualization.

Pedagogical creative potential constitutes a defining aspect of an individual's identity, an ethos shared by Nurakhmetov & Petrusevich (2019). This perspective illuminates creativity as a dynamic process that enables the fortification of an individual's cognitive and social prowess. The creative potential of educators is founded upon a comprehensive nexus of knowledge and competencies, honed through the calibration

of pedagogical practice. The cultivation of novel sensibilities is fostered through continual engagement with the zeitgeist and the cultivation of elevated cognitive faculties. Pertinently, the confluence of natural and social attributes engenders creative self-cultivation, an imperative prerequisite for autonomous decision-making (McLaughlan, 2023).

A symbiotic relationship between "creativity" and "ability" emerges, as underscored by Tazhibaev (1962), who positions "ability" as an inherent individual attribute manifesting in effective execution within a specific domain of activity. The interconnectedness of development, wherein biological, societal, and child-specific factors coalesce to shape the creative landscape. Creativity permeates an individual's cognitive faculties, operational activities, artistic creations, and the enlivening substance of material existence (Zhalmukhanova, 2018).

Materials and methods. The present investigation brings to the fore the pivotal role of creativity within the sculpting of the prospective archetype of an educator, in delineating the distinctive contours governing the evolution of the innovative trajectory underpinning the pedagogical acumen specific to biologists. In the contemporary milieu, every societal framework confronts the imperative of conceptualizing a bespoke "specialist model" or a professional profile attuned to the exacting requisites posed by specialized roles.

According to Slastenin & Podymova, (1997), the rubric of a teacher's professional profile encompasses a multifaceted assemblage:

A cogent comprehension of the societal political milieu.

The amalgam of social-psychological, ethical-pedagogical, and personal attributes is intrinsic to the educator.

The nexus of psychological and pedagogical preparation.

Attainment of professional training.

Profound grounding in the subject matter of instruction.

These attributes find their origin within the broader contours of pedagogical requisites that undergird effective instructional practice (Mukhamedzhanova, 2006).

Participants. The study's participants included teachers and students in a selected school in Kazakhstan.

Data collection tool. The study collected data through the observation method. The researchers observe studying methods devised by students during seminar sessions.

Data analysis. Throughout the lesson, the researchers concentrate on exploring and assessing the extent to which filler words are employed, devising strategies to eliminate them, comparing week-to-week outcomes, and presenting these findings according to a set schedule. To substantiate these matters with concrete evidence, the article suggests documenting students' efforts throughout several sessions.

Results and discussion. In the context of cultivating pedagogical eminence, it is imperative to duly account for the instructor's adherence to disciplinary norms and stipulated standards. To this end, a comprehensive assessment of the frequency of acronym deployment among biology students enrolled at the Institute of Natural Sciences and Geography was undertaken within the ambit of seminar sessions. The observational scrutiny encompassed scrutiny of the extent of acronym utilization among second-year students majoring in Biology throughout the seminar module. The outcomes derived from this empirical exploration distinctly unveil noteworthy patterns in the usage of acronyms. Particularly germane is the analysis of the amassed data presented herein, prominently exhibited within Table 1, elucidating the trajectory of students' acronym usage during the inaugural seminar.

Table 1. *Students' acronym usage during the inaugural seminar.*

№	Student	That's it	This one
1	Ibraeva Gulbanu	10	5
2	Tasheva Saltanat	7	4
3	Jakyp Daulet	12	9

Subsequently, with the intent of mitigating the prevalence of these conventional expressions, an instructional intervention was administered wherein students were directed to engage in the recording of their pedagogical discourse via a combined video and audio medium, subsequently subjecting themselves to its auditive review. The salient outcome stemming from this pedagogical maneuver was a discernible diminution in the utilization of the identified clichés. This transformative approach is detailed in Table 2, which delineates the measure of students' reliance on acronyms throughout the proceedings of the third seminar session. Table 3 displays the level of students' use of acronyms during teaching in the seventh seminar.

Table 2. *The measure of students' reliance on acronyms in the third seminar session.*

№	Student	That's it	This one
1	Ibraeva Gulbanu	5	3
2	Tasheva Saltanat	4	2
3	Jakyp Daulet	6	5

Table 3. *The level of students' use of acronyms during teaching in the seventh seminar.*

№	Student	That's it	This one
1	Ibraeva Gulbanu	2	1
2	Tasheva Saltanat	2	1
3	Jakyp Daulet	3	2

The application of biological methodologies in the elucidation of the analytical deductions ensuing from the aforementioned observations yielded substantial utility, particularly encompassing:

The Control Method
The Comparison Method
The Historical Method
The Experimental Method

Moreover, the confluence of diverse modalities and technological tools contributed significantly, with particular salience accorded to the following:

Critical Thinking
Tiered Training
Collaborative Techniques such as Brainstorming, Bingo, Five Fingers
Presentation Strategies
Dialogic Pedagogies
Visual Modalities
E-textbook Resources
Audio-Visual Materials
ICT-Enhanced Pedagogical Tools

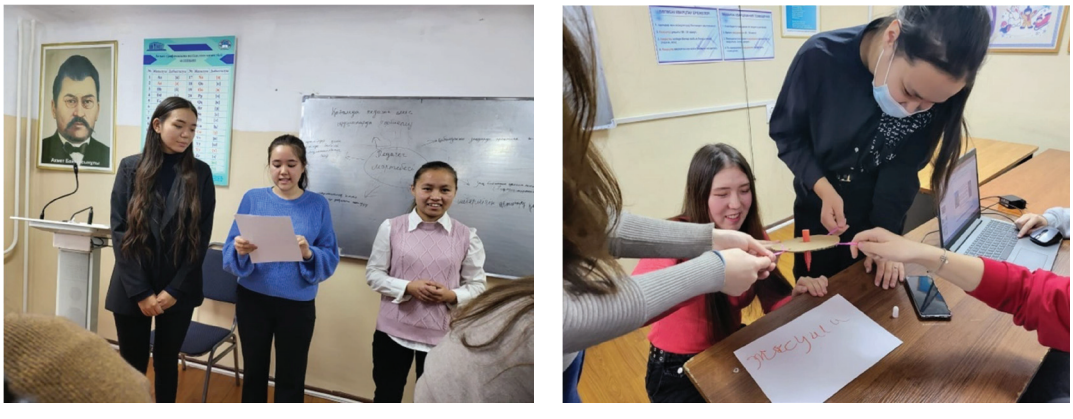
Simultaneously, within the seminar milieu, it became evident that substantial outcomes were attainable through a meticulous analysis of lesson dynamics, centered on the constituents inherent to the pedagogical approach. In the endeavor to present these propositions grounded in empirical veracity, an appraisal of students' efforts over a series of instructional sessions was undertaken. Manifested through the accompanying depictions, a trajectory of tasks calibrated to augment students' proficiencies during pedagogical engagement is discernible. The visual materials (picture 1) encapsulate the evolutionary progression of these pedagogical interventions aimed at skill enhancement within the instructional realm.

Picture 1- Students are studying in a seminar class using different methods.

In the preceding context, the depicted scenario underscores students' active engagement in collaborative group tasks, thereby imparting experiential wisdom to observers while engendering the cultivation of self-regulatory methodologies within the student body (Yik et al., 2022). This pedagogical endeavor aligns with the cardinal aspiration of fostering self-mastery techniques, aimed at instilling a state of equanimity during professional engagements, engendering aptitude in relaxation techniques, nurturing intrinsic self-training propensities, and inculcating a readiness for benevolent contributions and optimistic work appraisal. The purview of self-mastery techniques encompasses a spectrum of modalities such as occupational therapy, music therapy, bibliotherapy, and simulation games, among others.

The subsequent focus coalesces around the essential considerations pertinent to concentration-enhancing exercises. In substantiation of this perspective, reference is drawn to instructional interventions rendered by educators within the seminar milieu.

The ensuing tableau (picture 2) unfolds as an exploration of methodologies designed to captivate learners' attention. Central to this discourse is the act of concentrating on specific objects, images, or ideas for delineated durations, wherein two classifications emerge: voluntary and involuntary attention. A pedagogue endowed with honed attentional and concentrative faculties possesses the discernment to grasp the concurrent undertakings of students within the classroom milieu.

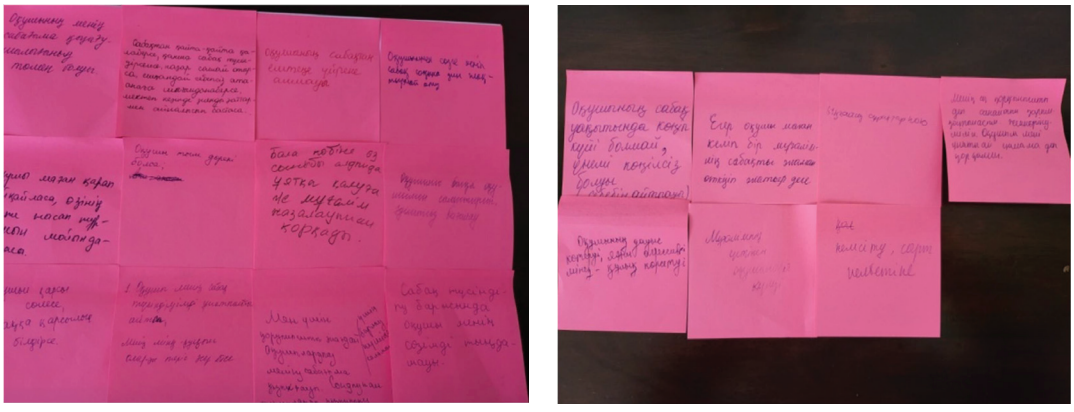


Picture 2- Students are doing experiments to focus their attention in the seminar class

At the same time, you can see the reflection of students on the lesson during the seminar (picture 3).

Picture 3- Students analyzing reflection in a seminar class.

Consequent to the comprehensive analysis of reflective processes within the seminar lesson, we hereby present the collated information inscribed on the affixed stickers, as provided by the participating students.



Picture 4. The results of the students' thoughts written on the stickers made for reflection during the seminar are shown.

Through a meticulous examination of sentiments expressed on the affixed stickers, several discernible conclusions have been deduced, elucidating students' apprehensions vis-à-vis their responses. These conclusions encompass:

Apprehension about students' lack of engagement and interest in the instructional content.

Concerns related to students' potential aversion towards the educator, accompanied by the prospect of encountering challenging inquiries.

Unease surrounding instances of student vocal escalation and the display of unfavorable conduct within the learning environment.

Embedded within these insights is the ability to glean a contemporary perspective on learners' emotional dispositions during pedagogical interactions. The prevalent surge of negative occurrences disseminated across social media platforms significantly impacts students, thereby underscoring the imperative for rigorous attention not solely to the transference of knowledge but also to the cultivation of adept pedagogical skills within instructional contexts (Bakir & Alsaadani 2022; Panckhurst & Marsh 2011; Abdullahi 2023). Consequently, the acquisition of preparedness to navigate a multifarious array of scenarios assumes an exigent role in line with the exigencies of the contemporary era.

Additionally, Picture 4 furnishes an illustrative exposition of the reflective analysis aimed at nurturing heightened pedagogical attentiveness. The cultivation of advanced pedagogical attentiveness underpins the faculty to concurrently retain multiple objects of focus while perpetuating unwavering and immediate cognitive engagement (De Leng & Pawelka 2020).

Essentially, the crux of the educator's role entails the systematic, consistent, and authentic augmentation of professional aptitude. Guided by the maxim "Professional development is the synergy of experience and reflection," an instructional practitioner is enjoined to meticulously scrutinize and evaluate each lesson, scrutinizing areas warranting refinement through a rational lens. This deliberate process engenders the dexterity to discern optimal strategies for the enhancement of individualized pedagogical expertise.

Within the seminar class context, a pedagogical session is convened, featuring the engagement of an esteemed Uzbek guest, delineating the thematic purview of cultivating the concept encapsulating the essence of pedagogical discourse (Picture 5).

The discourse of the teacher's speech is a dynamic conduit through which the instructor's attributes find articulation, revealing significations embedded in objects, phenomena, and relational dynamics, thereby fostering the development of students' characteristics. Pedagogical engagements play a pivotal role in shaping the teacher's professional orientation, enhancing pedagogical methodologies, and facilitating the attainment of targeted outcomes. The spectrum of pedagogical competencies encapsulates both internal and external proficiencies that permeate the teacher's practice. Notably, particular emphasis is directed toward the teacher's external demeanor encompassing

Picture 5- seminar class context encapsulating the essence of pedagogical discourse.

sartorial choices, conduct, facial expressions, and nonverbal communication. Of paramount significance, the teacher's "personal qualities" exert a profound influence on the efficacy of pedagogical endeavors. These qualities, notably encompassing ambition, perseverance, industriousness, humility, attentiveness, restraint, empathy, tact, open-mindedness, and integrity, assume concrete importance in the educational context (Sadirbekova, 2018).

Other scholars who complement this idea, returning to Schön's roots in Dewey, define reflective thinking as "the active, constant, and careful consideration of any belief or assumed form of knowledge in light of the grounds and subsequent conclusions that support it". In other words, reflective thinking involves drawing conclusions, generalizing, and using reflection on the past to stimulate reflection on the future—and ultimately, shaping future action through the development of reflection in Schön's action. Conceptualization and implementation of reflective practice in teaching and teacher education have been criticized for lack of theoretical and conceptual clarity; being free when it becomes a compulsive ritual; and insufficient attention to issues of context and relevance. (Segal, 2023).

A synthesis of various studies underscores that a quintessential aspect of the teacher's role is that of a manager. The capacity for managerial competence ought to be extensively cultivated through pragmatic undertakings. The characterization of managerial competence is an amalgamation of knowledge, skills, and capabilities inherent to individuals (Tusupbekova, 2020).

Control, within the teacher's managerial purview, emerges as a salient facet, encapsulating the determination and appraisal of students' cognitions, proficiencies, and behavioral patterns (Baikulova et al., 2021).

Conclusion. The utilization of innovative technologies by educators, driven by the commitment to meet educational requisites, plays a pivotal role in shaping a requisite threshold of knowledge attainment. The dynamic and captivating trajectory of pedagogical instruction hinges upon the teacher's perpetual quest for rational methodologies, propelling the evolution and rejuvenation of pedagogical practices. Contemporary biology educators harness novel methods and platforms during instructional sessions to engender both the quality and engrossing nature of lessons. This orientation is substantiated by the modern educational landscape's emphasis on individual interests, fostering students' capacity to make informed choices, exercise independent decision-making, and engage responsibly within society.

To actualize this endeavor, the pursuit of enhancing educational quality encompasses a crucial dimension: ensuring equitable access for all stakeholders in the educational process to premium educational resources and technologies. This objective seeks to address students' educational needs that will equip them for success within the rapidly evolving global landscape.

Innovation stands as an imperative to meet these demands. It is defined as the introduction of novelty into educational and instructional endeavors, engendering fresh methods, techniques, and tools alongside their practical

application. Within the discourse of innovation, varied definitions have been offered by scholars. For instance, E. Rogers underscores innovation as "an idea that is novel to a specific individual." Likewise, Miles posits that "innovation embodies a distinct new transformation, one that is projected to advance systematic objectives and solutions."

The conceptual purview of "innovation" has long been integrated into pedagogical discourse, and its characterizations range from "novel" to "transformative" across scholarly works. This term's usage resonates widely in educational theory and praxis; however, the scientific community has yet to offer a definitive, comprehensive definition. Many extant definitions fall short of imparting an all-encompassing understanding.

Our analyses are guided by Ryan and Deci's Self-Determination Theory framework. Ryan and Deci posit that students' levels of engagement, and resultant learning outcomes are largely determined by the degree to which their core psychological needs have been met: feelings of autonomy, connectedness, and competence. Supportive social conditions that facilitate student autonomy and peer connection increase perceived ownership of learning activities, intrinsic desire to learn and participate, and higher-level thinking. This sense of autonomy increases feelings of competence and satisfaction, and decreases stress, but must be accompanied by adequate scaffolding and instructor support. Through this mechanism, connectedness, autonomy, and competence have been consistently associated with student engagement and learning outcomes among undergraduate students in various fields.

Nonetheless, central to the new pedagogical paradigm is the creation of a platform that fosters the development of individual personality traits among students. This paradigm accentuates the humanitarian ethos of education, wherein individuals transcend being mere objects of study to become agents of creativity and knowledge, motivated by an innate drive for artistic expression.

Thus, the strategic integration of diverse forms of games within seminar settings assumes paramount significance in nurturing students' traits. Corroborating this assertion, the research of American educator Edgar Dale attests that retention rates are approximately 20% for auditory input, 30% for visual input, and 70% for tactile and participatory engagements.

Zh. Abiev, S. Babaev, and A. Kudiyarova assert that the imperative of pedagogical activity within the ambit of contemporary education, socio-cultural evolution, and innovation development in pedagogical practice is underscored by multifarious conditions (Torybaev et al., 2021).

Recommendations. Primarily, the ongoing socioeconomic transformations within society necessitate a profound overhaul of the educational system, methodological approaches, and technological frameworks that underpin diverse educational institutions. These reframing positions pedagogical innovation as a tool for rejuvenating the educational policies of biology instructors, grounded in creation, mastery, and application.

Secondly, the heightened humanization of educational content, coupled with the dynamic evolution of subject domains and the introduction of novel disciplines, engender an unceasing quest for novel collaborative forms and instructional technologies. This dynamic reinforces the elevated standing and reputation of pedagogical education among educators.

Thirdly, the disposition of biology educators towards embracing and incorporating pedagogical innovations into their practices has evolved. While the past saw innovation-oriented activities primarily executed through practical applications of prevailing innovations, the contemporary milieu necessitates a more profound engagement characterized by alternative and research-driven approaches. In this context, educational administrators' activities should encompass the evaluation and appraisal of teachers' introduced innovations, alongside fostering a conducive environment for their implementation and utilization.

To achieve this, Reflective journal writing constructs and expands pre-service teachers' understanding of their teaching. Reflective journals serve as a personal space for pre-service teachers to clarify their thinking processes and to create a connection between their theoretical knowledge and the real classroom.

Fourthly, the integration of general education institutions into market dynamics and the proliferation of non-state educational entities within new instructional paradigms have engendered a palpable competitive environment.

Hence, as innovative biology educators adeptly harness diverse innovative approaches and platform methodologies within educational frameworks, the quality of instructional sessions is poised for marked enhancement.

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A LOOK AT NATIONAL EDUCATION IN THE WORKS OF THE STORYTELLER TURMAGAMBET IZTILEUOV

Abstract

In literary studies, we see that research on the works of Syr region storytellers has led to the joint writing of various new directions. The article reveals the scenes of national education and cognitive foundation in the works of Syr region storyteller T.Iztleuov. In other words, the influence of national education on the psyche of the nation, its mental attitudes, and imagery in a broad concept is taken entirely and interpreted as a pledge of education.It provides for the formation of the worldview of the younger generation, and the education of patriotism. It follows from this that the examples and aitys, the poems of T. Iztleuov are a poetic expression of the spirit of the nation. The culture, history, and education of the nation as a whole are preserved in the works of Syr region storytellers. It is also established that one of the main functions of education is morality.Therefore, taking the education of a person as an object, considering him in a scientific system, and taking into account the need to study his cognition and thinking depending on psychological units and didactic concepts, in our article we set a goal to analyze their paradigms.

Keywords: materials, cognition, national worldview, semantic paradigm, didactics, spiritual wealth, national spirit, edification, propaganda-commandment, world civilization.

Introduction. We all know that art, literary and cultural ties are a treasure of spiritual value, which have been enriching the world of the soul and the world with the teachings of morality and faith in the centuries, old history of human generations. Today, every nation is returning to its spiritual values and giving reasonable education to its children. On this occasion, it is remembered that our forefathers practiced their thoughts and commandments in the field of education. It is clear that T. Iztileuov, who has a special place in regional literature, plays a special

role in the education of the generation with his deep thought, melodic terms, and examples of testaments in his sagas. His philosophically profound works are based on issues related to the main point of national common education morality, faith, work, and family education.

The educational principles of theSyr storytellers, who bequeathed faith and respect to the generations, are a valuable heritage and a very necessary example today. Therefore, studying the position and direction of T. Iztileuov, the educational role of his works, and evaluating his scientific level shows the relevance of the research.

The heritage of Syr storytellers, which is the source of the rich spiritual heritage of our people, makes a great contribution to the education of the nation.

Summarizing the history of the future, the learned thinker Yusup Balasagun, who lived in the 10th century, concluded that the dignity of a person is determined by knowledge and intelligence: "Given power: a person has matured today, given intelligence: many problems have been solved" (Balasagun Zh, 1986).

The novelty is that the formulaic style was first studied on the oral material of the zhyrau dated the 15-18th centuries, where stable units are represented by a formula - the basis of the epic style and an important means of the singer's oral-style technique. (Zhanabayev K. et al., 2022)

What we want to say is that the source of Kazakh poetry's rise to this level of excellence lies further. It is obvious that the Syr storytellers, who have their characters, flourished along with field culture, and their thoughts related to ethics, aesthetics, and didactics are of great importance.

In any case, there is no doubt that national education in the works of Syr storyteller T. Iztileuov is the highest point of culture and education of our people.

Main part. Although linguistic and stylistic features of legends are studied in the science of literature, some of their significance and meaning, educational ideas, and national values are still an issue to be considered. In order to reveal the content of this work, there is no doubt that it is of great educational value to preserve the sacred places of spiritual values in the legends and create them for the needs of the next generation.The legend may not be scientifically accurate, but we tried to make a scientific predic-tion about the history of the people and the events that happened.Currently, there are many researchers of legends and geographical sacred objects in Kazakh folklore: genealogists, archaeologists, local historians. Every year, the number of explorers of holy places is also increasing.In regional literature, which is an integral part of Kazakh literature, some legends were born and became the main indicator of folklore work (Zhanbershieva U. N., 2022).

The author also pointed out that the role of Batyrs increased in the late eighteenth – mid-nineteenth centuries, which was caused by the national liberation fight of the Kazakh people against the colonial policy of tsarism.(Samal K., 2016)

The Syr region has been respecting art and song, passing it down from generation to generation, turning it into a spiritual wealth, starting with Korkyt songs.

He has turned the world of mankind in the space of world civilization into a spiritual treasure, combined with moral education.

This distinc-tive feature of the traditional culture of the Kazakh people and its spiritual, moral, intellectual development, the formation of national identity is clearly manifested both in oral folk art and in the philosophical reflections of outstand-ing Kazakh thinkers throughout the centuries-old cultural history of the Great Steppe (Izotov M. et al., 2020).)

If we say that spiritual renewal lays the foundation of the national code, it is impossible to revive national consciousness and glorify national values without reviving history. That is why it is important to focus on national education, one of the most important issues for Kazakh science.

As authors noted: "The bard and Poetry School of Syr Darya River surroundings, based on spiritual inspections, has been formed and existed from the earlier times. Remarkably, its zenith overlaps to XIX - XX centuries. The representatives of those schools are known as sulei's among the folk. Receiving the education in the renowned madrasa's of Bukhara and

Urgench, the sulei's of Syr Darya river vicinity attempted to fulfil their oath and purpose of their life, already defined in their school years. That sacred goal was explaining the order of God to common people in simple way, directing public to the route of belief and keeping them on the true path of ancestors by clarifying delusions. In that big way, they needed to be armed with inspiring, sharp words of poems which could find a direct route to the heart of people" (Tulebayeva A.Tet al., 2019).

Syr storyteller Turmagambet Iztileuov is a special poet who has his e in the history of Kazakh literature. It is worth mentioning that he paid attention to the education of the generation and the nation in all his works, starting with the didactic and enlightening propaganda and testament poems. His position as a poet and citizen was national education and generational education.

That is why, in raising the poem to the height of the national spirit, he is on par with classical poets such as Abai, Ibray, Mirjakyp, and Sultanmahmut. Opinions about modesty, faith, and morals are consistent with modern wishes and family education. Abay Kunanbayev described the upbringing of a person in his eleventh wise words: "When a child is full of knowledge, science, and love, only then will his name be a man" (Kunanbayev A., 1995). If so, it is clear that the great channel of T. Iztileuov's works, which the authors are going to talk about, is education filled with lyrical didactic poems, an example of how to become a person. It can be seen that his rich literary heritage is rooted in folklore, motifs often found in oral literature, and folk scenes turned into a source of education, connected with the traditional features of folk poetry.

He created an artistic chronicle of the country's history, aimed at instilling and understanding the national spirit in the younger generation, conveyed it to the next generation in a national pattern, and left a legacy with the art of speech.

Materials and methods. The expression of national education in the works of Syr storytellers reflects not only the cultural lifestyle but also the entire national characteristics of the people. Therefore, it is better to clarify its special characteristics and show its features separately.

Recently, research in the science of literature has led to the emergence of various new directions and new research. Such studies are reflected in the understanding of human education and knowledge.

Analyzing the legacy of the Turmagambet poet from the point of view of continuity with national education, we took into account the works of scientistsM. Auezov, A. Konyratbaev, R. Berdybaev, O. Kumisbaev, B. Karibozuly,U. Zhanbershieva, S. Kosanov, B. Zhusipov, G. Tuyakbaev, E. Abdikhalykova, G. Oralova, and others. The national tradition, cultural features, and national character of each people are reflected in the language of literature and art of that country. Figurative words are often used in Kazakh lore, and they have great educational value.

A questionnaire was collected from the 2nd year students of the specialty 6B01721 - Kazakh language and literature during an experiment to reveal the educational and moral value of the works of Syr storyteller T. Iztileuov. 10 questions were given according to the methodology of N.G. Luskanova "Assessment of the level of learning motivation at school" (Bazarbekova R.Zh. , 2022) for determining the level of student's learning motivation.

#	Survey questions	Range	Percentage of students (n = 160)
1	Do you know the concept of "Syr storytellers", have you ever heard of it? Do you want to know about Syr storytellers?	5	43 %
2	Do you need the teachings of Syr storytellers to become a professional person?	4	47%
3	Do you need to learn the educational heritage of Syr storytellersto become a professional person?	3	49%
4	Are you satisfied with the use of the works of Syr storytellers by teacher-professors in their classes, and the level of preparation?	8	33%
5	How do you evaluate the effective use of teaching ideas of Syr storytellers in teaching subjects?	9	29%

6	What directions should educational institutions take in teaching Syr story-tellers?	10	19%
7	What do you need to get to know and master the works of Syr storytellers? What is your opinion about the need to teach Syr storytellers in universities and does it have an impact on education in high school?	7	37%
8	Does educational training in the works of Syr storytellers contribute to the formation of a student's personality?	1	56%
9	What is your view on the national nature of educational motifs in the works of Syr storytellers?	2	52%
10	What kind of values do the works of the Syr storytellers, which have preserved a vast treasure of national values, develop in an individual?	6	41%

Quantitative analysis. Answers to 10 questions are evaluated from 0 to 3 points (the negative answer is 0 points, the neutral is 1 point, and the positive answer is 3 points). Learning motivation means disappointment, and its increase means positive dynamics in learning and development.

Also, in the course of the research, methods of analysis, comparison, description, systematic-complex analysis, and summation were used.

Results and discussion. The above table shows the data obtained from the students according to the survey. The level of learning motivation was determined according to the quantitative analysis of N.G. Luskanova. We noticed that according to the survey, students in the 1st year responded at an average level, and students in the 2nd and 3rd years answered at a high level.

"A person should be educated, not the first knowledge. The knowledge given without education is the enemy of humanity, it will bring disaster to its life in the future"(Nysanbayev A. et al., 2009) as the great scholar Al-Farabi said, the poet Turmagambet, who was charged with enormous responsibilities in human education, is also seen in the works of the poet Turmagambet as a model for national education.

For example:

Some enjoy a little happiness,
In the shack that fluttered like a frog.
Let people yearn for your humanitarian work.
Why is your belly fat?
Many people say to themselves:
"I am also a person!"
The cream is in kefir, which looks like butter
If you are a man, serve your country.
If you slap your wrist, –

(B.Zhusipov., 2007)

He writes about the noble qualities of human nature, the benevolence, and kindness of our people.

The position of the Turkic-Kazakh civilization mastered for many centuries is to propagate the civil personality and exemplary nature of the generations. In world literature, this process, that is, generational education is the most basic worldview. "Syr storytellers are the commandments of poets, they appeal to morality, art and education, justice", - (Karibozuly B et al., 2019) professor B. Karibozuly sums up.

Confirming this opinion: "T. Iztileuov dreams of educating his nation, raising it to the ranks of other moral countries, raising a highly educated and intelligent generation. Thus, the Kazakh people considered it their duty to become a fundamental country and contribute to the development of their art", - (Zhanbershieva U. T. 2003) concludes scientist U. Zhanbershieva.

Turmaganbet's works are also distinguished by covering issues related to national education. His works, which combine poetry and teaching, are connected with the message of education. In the Kazakh family upbringing, the formation of mutual relations between people is the moral, duty to serve the people, and the tradition of honoring the country and parents is the eternal glorification of national education:

The horse has a seed,
A well-known horse from horse
If there is an older brother in front
and a younger brother behind,
For a boy, he is a tool,
There is a saying: "All four are for four!"
Your daughter is the bird of happiness.
If you can keep your mouth shut for six,
Do not bind yourself as a slave to the enemy, –

(Iztleuov T., 1982)

that people in folk education do not deviate from the path of goodness, with noble thoughts. The good qualities of our nation that can be passed on to the next generation will be modeled and the continuity of education will be clarified.

It can be seen from his poetic personality that he describes the image of the upbringing of the offspring with Kazakh wisdom. In all his works, the Kazakh national worldview and national upbringing are connected.

There is no greater value for mankind than the education of generations. Turmagambet's works clearly show that if we want to educate the nation through the education of the generation, if we want to reach the heights through education, then teaching, exhortation and commandment are the means of educating a person.

He was able to express the good and bad qualities of a person's behavior with words of wisdom.

Good and bad are philosophical categories. The poet Turgamambet wrote these admonitions, which have been passed down from father to son since the beginning of the human race:

A good person advises a bad person.
He looks at the good and the bad.
Saying "I was born", I was born from our ancestor,
and will say proverbs with his mouth shut, –

(B.Zhusipov., 2007)

and considers it his duty to convey what should be valued and followed in life.

The poet believes that national consciousness and national memory are the most precious and priceless qualities for any person and believes that education is the basis of anthropology.

It is clear that the poet, who believes that the future generation is the key to the future, compares the good and the bad in the core of the poem, and it is a thought aimed at the spiritual development of the nation.

Effective means of education of our nation are depicted in fairy tales, epic works, customs, struggle for happiness, mutual relations of people, the best qualities of the Kazakh people, and love of country and land.

Singing about respect for elders, valuing women, humaneness, and kindness, contributes to the development of a person's ability to think, language and personality.

Turgamambet lists the conclusions taken from life itself like pearls with precious words. For example,

A man's job is to agree.
The deed of the bad is the opposite,
Foolish man, dumb horse,
Don't be proud that you don't object.
Proud that I do not hold a grudge, –

(Iztleuov T., 1982)

- influenced the education of the generation with a brief allusion. He summarizes the reality of life and often uses catchphrases and folk proverbs.

The logical rule created by each nation is to summarize the educational thoughts in proverbs and sayings and fit them into a single word, conveying its educational value to the minds of the generations: "Don't look at a man himself, look at his words. Shame is stronger than death," he thought. For example, in the saga "The Wise Old Man" by T. Iztileuov:

No less, no matter what the case,
It's a story told by old people.
In the saga "Captive Girl":
From those who said that I would find my way alone,
If it doesn't die, it won't grow.
In the "Rawa Banu" saga:
My work may not be worthless.
You reap what you sow, –

(Iztleuov T., 1982)

through proverbs from the history of the people's genealogy, he explains the education of the nation with the concept of the people, and the solution is binding.

If you don't know the value of food,
let them starve you.
If you don't know the value of a horse,
let him walk you

(Iztleuov T., 1982)

The poet, who believed that the future of the nation is national education, knew the value of food and horses and tried to inculcate the national spirit and nationalism throughout the generations. He calls us to love the customs, country, religion, and language of our people and to avoid bad habits and strange behavior.

In his poems full of testaments, he tried to understand that human happiness is not limited

by wealth and that the noble quality of a man is to serve his people faithfully and to give education through national values.

If the garden grows and you end up with wealth,
Your eyes are closed, your chest is broken.
Serve your people well.
The well-known secret of infertility is for married people

(B.Zhusipov., 2007).

He knew that the highest level of morality is mastering art and knowledge and serving the people. Education of the individual is connected with the folk principle, "Whatever one sees in the nest, one flies when it flies"which is the principle that determines the future of a person. So, he dreams of raising a reasonable generation in his family by providing national education.

The ultimate goal of Turgamambet's works is to serve the people honestly. Poets'"To students", "To My Children", "Teacher's Proposal", "Humanity", "Generosity born for the people", "Peace", "When the sun rises, light escapes from the moon" etc., poems are steeped in folk education.

In Turgamambet's view, there is no greater wealth for a person than the education of generations, and he predicts the future by relying on the greatness of our nation in instilling this value throughout the generations.

In the customs and traditions of our people, such qualities as respect for elders, respect between brother and sister, wife and husband, mother and child, and harmony have become educational tools. Turmagambet presents these thoughts in the poem "Teaching" in an easy-to-understand manner.

A younger brother called "brother",
It can be called my soul.
A woman waiting for her husband,
You can say Mrs.
Tulip boys and girls
It can be called fashion.
Thoughtful sons,
He can be called a scientist.
Such an exhortation,
Spread to the end of the country,
It can be said

(B.Zhusipov., 2007)

Every person who reads the poem has enough thoughts in their heart, family education is described in simple folk language, not artificial, but with peace, unity, and respect. He expressed the vivid expression of family solidarity and unity with poems.

Academician Z. Kabdolov explains: "The art of language and the beauty of words in literature is not in the presence of artificial gloss, but in the naturalness and simplicity of the word, its folksiness, and purity, the literary language is not just a language, therefore, it is a beautiful word"(Qabdolov Z., 2002)

According to this opinion, the figurative words used by the poet are the reality of life, the field of education comes in front of your eyes, and we can understand that he made an educational expression with beautiful words.

Conclusion. Since the 20th century was a period of globalization, the poet evaluated the issue of upbringing, education, and the national character of native literature, reflecting the customs and traditions of our people. T. Iztileuov's poems are valuable as a heritage of didactic taste, as the poet relies on the people, and the people's future, while enriching the national-spiritual world of our people, they aim to provide moral and civil education.

Determining the national character has become the main task in modern Kazakh literature and pedagogy. And the national character in the works of T. Iztileuov resonates with the great goal of an independent country, history, and education. Through this, we noticed that he is a poet who honored the nation of Turgamambet.

The works of T. Iztileuov, who continued the continuity of the traditions passed down from century to century and sang in harmony with national education, are kept in the memory of our nation, revived and continued. If we recognize the power and energy of family education, which is the process and result of the formation of an individual in the formation of a national tradition that lays the foundation for peace, unity, and moral relations in the family, then the poet Turmagambet first of all paid attention to the family, it was undoubtedly his unshakable position.

The authors consider it our civic duty and an urgent task to understand and evaluate the expression of national education in the works of T. Iztileuov, who made an invaluable contribution to Kazakh literature.

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IDENTIFYING THE IMPACT OF BULLYING AT SCHOOL

Abstract

The main purpose of our research work is to identify and examine the impact of school bullying on pupils' academic achievement. Our study examined how teachers handle the behavior and situations of bullying in middle school. The research showed that bullying behavior is more prevalent and the bullying is rising, and more training is needed for teachers and middle school staff to recognize and manage bullying among pupils. The relevance of the study is connected with the increasing problems of adolescents in recent years. The manifestation of children's aggressive behavior in communication with each other requires special attention. The manifestation of the phenomenon of "bullying" in schools and colleges raises strong concerns. Despite the extreme importance of the bullying problem in schools and colleges, little research on the topic has been presented so far. "Bullying", which is a serious problem, has become widespread in Kazakh society in the last ten years. However, Kazakh information about it in the media, especially in the Internet space, is extremely rare. This research project examines the concept of bullying, bullying frequency and types, bullying location, bullying consequences, and prevention strategies for anti-bullying at school. The research method is based on a questionnaire and semi-structured interviews. Fifty-four participants were recruited for the questionnaire and 3 educators took part in interviews. This research begins with a review of the literature on the topic, the methods used, and the outcomes of our study.

Keywords: academic achievement, bullying, influence of bullying, pupils, school.

Introduction. According to UNICEF, 63% of children in Kazakhstan have witnessed violence and discrimination, 44% have been victims, and 24% have committed acts of violence and discrimination against other children in school (Chirkina et al., 2019). Approximately 300,000 children in Kazakhstan become victims of bullying each year. Every fifth child from 11 to 15 years old is mocked and bullied by classmates. Not everyone withstands such pressure and, alas, some sometimes decide to commit suicide.

According to experts, 17% of 11- to 15-year-olds are victims of bullying one or more times a month. Moreover, pupils in urban schools are more often subjected to humiliation than in rural areas . In addition, more than 12 percent of 11- to 15-year-olds have experienced cyberbullying at least once (Dewani et al., 2021; Hassan et al., 2020). As part of this issue, the President of the Republic of Kazakhstan Kassym-Jomart Tokayev in his Address "Kazakhstan in New Conditions: A Period of Action" noted that "it is time to take legislative measures to protect children from cyberbullying. It is necessary to strengthen other measures to ensure the protection of children's rights (Bioglio & Pensa 2022; Alcaine & Sánchez 2020). " Today, even the vast majority of young people who find themselves in the path of someone else's stream can be considered victims of this cyberattack (Isik & Ozdemir 2019; Masrom et al., 2021). For this purpose, the media project "Unsiz qalma" was created in our country. The project is implemented as part of the Internews Kazakhstan program "Media CAMP-Central Asia". Project leader Olzhas Kasym informed pupils and presented videos on preventing bullying (Aikenova, 2014)

Analysing the Kazakh researchers' works, we can highlight several directions of problems. Bullying in modern society is quite a frequent problem in the structure of interaction of various collectives: labor, student, military, and other associations formed by social interaction. Here the bullying definition used in this report has a broad basis and covers a wide range of personal relationship behaviors (Kaldybaeva,1995).

Bullying here involves acts occurring within a dominant versus a less dominant person or group relationship, where:

- An unbalanced power (actual or perceptual) is expressed through violent actions, physically or psychologically;

- A negative interaction takes place, either directly (face-to-face) or indirectly (gossip, alienation);

- The negative activities are undertaken with the intent to cause harm. It may include some or all of the following actions;

• physical acts (hitting, kicking, biting),

• Verbal actions (threats, name-calling, slurs, ethnocultural or sexual comments), and

• Social exclusion (spreading rumors, ignoring, gossiping, exclusion).

- The negative actions are repetitive. The intensity or length of them set up the dominance of the bully over the victim (Iranzo et al.,2019)

The problem of school bullying in the country emerged already in the early twentieth century, in 1905. Olweus first published his work on this topic. The first systematic studies of bullying were conducted by Scandinavian researcher Olweus (1993). He elaborated on the concept of bullying (bullying), describing it as harassment, discrimination, and bullying. Later British scientist Tattum (1988) was interested in this problem and understood bullying as a specific type of violence where a person is physically attacking or threatening another person with weakness and powerlessness over a long period to make them feel withdrawn, scared, discouraged, and isolated.

Sung (2018) gives the following definition of bullying: bullying, which is violence that can be both short-term and long-term, can be physical or mental, and is manifested against individuals or a group who are not able to defend themselves in the current situation. Other foreign scholars have put forward their ideas about the concept of bullying. Ttofi et al., (2011) suggested that bullying, a behavior that could be identified as a recurring physical, mental, and social or verbal attack, can happen many times in people whose power is formally or contextually superior, on people who are incapable of defending themselves, to inflict misery to obtain their self-gratification. According to Walters (2018), bullying is long-term abuse, either physical or psychological, carried out by one person or a group of people and aimed against a person who cannot defend himself or herself in a real situation, with the conscious desire to hurt, scare or put a person under prolonged stress. In identifying bullying as a situation, Smith (2016) provides concrete examples of bullying such as threatening, hitting and kicking, locking a person in a room, sending an intimidating message, or refusing to interact with anyone. Bullying is an observed behavior that takes place between young people in school, causing feelings of offense or distress (Thornberg et al., 2021).

Laftman et al., (2018) prove that bullying can be committed either individually or in groups and provokes violation of the rules of interaction, in which the dominant subject ("the bully") repeatedly demonstrates such behavior that confuses the less dominant subject ("the victim") (Laftman et.al, 2018).

Main part. The Russian researchers Novikova and Rean (2019) distinguish three major approaches to the research of bullying: 1. The dispositional approach concentrates more on the subjects of bullying, on the personal traits of people involved in bullying situations, intrapersonal prerequisites that lead to a person being a victim or an aggressor in these situations. 2. The temporal method considers the imbalanced risk realization in the course of a person's life path and highlights the existence of periods of increased sensitivity due to life events, the exposure to which increases a person's vulnerability and the risk of mastering the role of aggressor or victim in bullying cases. 3. The contextual framework notes the significance of environment, group microclimates, and community systems process in that the dominant mode of interaction between people becomes a mode based on unequal power: context actualizes intrapersonal preconditions and moves bullying from the category of risks to the category of reality.

In surveys, about the problem of bullying many scientists from different countries have put forward their definitions of bullying, Many are inclined to say that bullying is violence, some scientists say it is bullying, some say it is action, aggression, or a pattern of behavior (Khukhlaeva, 2021; Yarmina,2018). The most

prominent in defining bullying is that bullying is a stereotypical interaction. Despite this, all researchers are similar in their understanding of the presence of a large group of social, psychological, and pedagogical problems. Based on the above concepts of different authors, we can identify common characteristics of bullying, such as violence (physical, psychological); bullying occurs alone or by a group of people; bullying is directed against a psychologically/ physically weak person who cannot defend themselves; bullying is systematic and prolonged. In what follows, we will rely on the concept that bullying is prolonged violence, physical or psychological, perpetrated by one person or group against a person who cannot defend themselves (Stratiychuk,2019). This concept most fully and accurately describes the concept of "bullying" and includes all the characteristics that we have highlighted (Soldatova, 2021).

We will examine bullying among adolescents in school, which occurs in connection with the learning process, in school. It is necessary to determine what forms bullying takes at school. It is stated that there is physical and mental violence in the concept of bullying. Researcher Shapovalenko (2020) says about the existence of verbal, behavioral, and aggressive bullying, with physical violence; distinguishes physical, emotional, verbal, mental, and sexual violence (Obukhova,2021; Khanolainen & Semenova 2020). On this basis, we can distinguish such forms of bullying: 1. Physical school bullying - deliberate pushing, hitting, kicking, beating, and causing other bodily harm, etc. Sexual bullying is also possible, which includes acts of a sexual nature. 2. Psychological school bullying violent actions related to action on the child's psyche, psychological damage is inflicted through constant insults, threats, harassment, and intimidation. The "victim" begins to feel insecure because of constant labelling (hurtful nickname), teasing, spreading of unpleasant rumours, isolation, intimidation ("offender" can make the "victim" do things he/she does not want), extortion (money, food, forcing to steal something), damage and other actions with property (theft, robbery, hiding of the "victim's" personal things). It also includes cyberbullying - humiliation with the help of cell phones, the Internet, distribution of ambiguous images, photos, rumors, name-calling, etc (Dashuk, 2019). Thus, based on our analysis, we can conclude that bullying is understood as violence that is carried out systematically over a long period, by one person or group of people, against a person who cannot defend themselves. These actions are aimed at causing damage and harm to the victim over a long period, to obtain psychological or physical satisfaction by the offender.

Purpose of study. The main purpose of our research work is to identify and examine the impact of school bullying on pupils' academic achievement.

Materials and methods. In this research paper, qualitative and quantitative methods were used.

Participants. In the process of data collection, first, students participated in the online questionnaire. The participating pupils were asked to answer the questionnaire. Then the following method was a semi-structured interview. Participants were asked several questions on the topic.

In this regard, since our study focused on bullying, we looked at participants who had experienced and resolved bullying issues. In addition, some participants had developed anti-bullying strategies. Here, participants also had to show confidence and professionalism in dealing with bullying among their students. In the data collection process, all 54 pupils took part in the online questionnaire. It included respondents from school number 153. Pupils were asked to respond to the questionnaire and informed not to write their names or any personally identifiable information on the questionnaires.

Data Collection Tools. The used method was a Survey Questionnaire for learners. The next method was semi-structured Interviews, especially qualitative interviews, which allow for understanding and meanings to be explored in depth. When coupled with the literature review, informal semi-structured interviews provided us with information to interpret and analyze for our research. They consisted of 4-5 questions with 20 to 30 minutes on average.

The research questions addressed the participant's experiences with bullying in the classroom, different types of bullying, and the

influence of bullying on pupils, classes, and the school community.

Due to our research focus on problems of bullying, we looked for participants who had experienced and solved problems of bullying. Furthermore, some participants had demonstrated inclusive practices in their classroom or school, whether they had taken part in anti-bullying strategies initiatives or campaigns, participated in professional development courses or workshops, or illuminated inclusive teaching strategies. Attendees were also expected to demonstrate competence and confidence in addressing bullying among their learners' backgrounds.

Data analysis. Therefore, we collected quantitative as well as qualitative data and carried out descriptive and theme analyses, respectively. Descriptive analysis focuses on quantitative data, and this approach to analysis is primarily used to identify differences in attitudes between groups. Thus, descriptive analysis is used to examine how bullying affects academic achievement among middle school students. Additionally, thematic analysis was utilized to analyze qualitative data.

The interview transcripts of the teachers were collated before seeking interpretations. During each interview, insights and meanings were analyzed, which were used to identify common phrases to explore to develop a theme.

Results and discussion. As we have mentioned before, questionnaire data were collected from fifty- four learners (6th B, V, G grades). Pupils were asked to report the bullying forms they observed. The majority of pupils reported that the bullying forms they have witnessed physical and verbal bullying, which accounted for 38 %. Among the participants responding to this question, those who said they had only experienced physical bullying accounted for 34 %, and 18 % said they had only experienced verbal bullying. Furthermore, 4 % reported experiencing both verbal and social bullying; 3 % said they experienced other forms of bullying that were not listed, and 3 % said they never faced any form of bullying. The findings show that physical and verbal bullying are the most experienced and widespread forms of bullying that the majority of students have witnessed. The qualitative results are presented in Table 1 below.

Table 1. *The qualitative results of the study*

Versions	Periodicity	%
What was the harassment form?		
Physical bullying	16	34
Verbal bullying	10	18
Physical and verbal bullying	17	38
Verbal and social bullying	4	4
Others	4	3
I've never faced bullying	3	3
Total	54	100

The research also focused on students reporting incidents of bullying that they had witnessed most often. Therefore, pupils were asked to identify the places they reported any form of bullying they encountered. Fully half of the pupil respondents (50 %) indicated that they never tell anyone they are bullied. The fewest number of pupils (7%) pointed out that they tell their parents when they are bullied at school. Pupils who indicated they told the school administration when they were bullied made up 26%, and pupils who indicated they told their friends when they were bullied at school were 17%. Results show that pupils in general do not tell anyone, including school administrators, parents, and friends, about bullying.

Table 2. *Descriptive report on pupils reporting on bullying*

Versions	Periodicity	%
Who have you reported that you are being bullied?		

School Administration	13	26
Parents	2	7
Friends	12	17
None	27	50
Total	54	100

The research also aimed to determine the pupils that suffer the most from bullying between males and females in classes in private schools and residential schools, and how often pupils experience bullying in schools. The results, presented in Table 3 below, indicate that male pupils suffer the most from bullying in school than female pupils, comprising 21%. Pupils indicating that both males and females experienced bullying equally were 67%. So, the results suggest that both male and female pupils faced bullying to an equal extent.

Table 3. *Descriptive reporting of the most bullied pupils by gender and by frequency of bullying*

Versions	Periodicity	%
Who is the worst victim of bullying in your class?		
Males	14	21
Females	10	12
Both	30	67
Total	54	100

After collecting the data by conducting the interviews, we transcribed the interviews into script format. I then read through the transcripts of each interview and identified codes within data and themes within the categories.

Qualitative analysis of teachers' views of the data collection from teacher interviews was used to create themes describing the research questions. In This subsection, the research findings are presented in the form of themes. The themes were designed based on the information gathered from the teacher interviews. The following themes were identified: bullying frequency and types of bullying, bullying location, bullying consequences, and bullying reduction strategies. A coding process was conducted that resulted in the following codes for the bullying frequency and types of bullying theme: Verbal Bullying, Social Bullying, Physical Bullying, Bullying Rate, Bullying Location, Coding Process using codes for Academic Decline, student death, attrition, bullying as a survival mechanism, and strategies to reduce bullying based on the following codes: Policy and Regulations and Disciplinary Measures.

The bullying frequency and bullying types. According to the data gathered, a theme analysis of the interview data was conducted. As a data analysis result, themes of bullying incidence and types of bullying were developed. A process of coding was conducted during the analysis to assist in the theme creation. Three teachers provided responses that were coded to create themes. Teachers and pupils provided feedback on bullying types and frequency they had witnessed. The models of bullying frequency themes and types are verbal bullying, social bullying, physical bullying, and bullying incident numbers.

The teachers all provided their bullying behavior, its types, and frequency. Based on the teachers' answers, verbal, social, and physical bullying were common types of bullying that teachers observed in schools. Teachers indicated that verbal bullying, which typically happens in their schools, is mocking, hazing, and call-backs. Teachers also revealed that social bullying - spreading rumors about someone and intentionally leaving someone out - was common among pupils. Teachers said that bullying happens daily, and some teachers witnessed bullying five times.

Teachers were also asked to talk about what they think about bullying at school. Teachers shared that physical, social, and verbal bullying are regular occurrences in schools, and it happens either at school or on the way home.

Bullying Placement. Manual coding of teachers' responses was conducted, and a theme

of bullying location was determined. The theme codes were: bullying mostly happens at school, bullying in class after the teacher leaves, and bullying on the way home or to school, as shown in Appendix C. The participants also spoke about the places where bullying occurs. The answers indicated that bullying happens either at school or when pupils are going home. Teachers pointed out places in school, such as classrooms, hostels, and the playground, where bullying happens. Teachers explained that pupils practice bullying in school, especially in classrooms after teachers leave the class. Other pupils took part in bullying during school hours because of idleness.

The consequences of bullying. Teachers were requested to share their opinions on how bullying affects academic achievement. The codes that formed the theme were declining achievement, student death, dropping out of school, and bullying as a coping mechanism, as seen in Appendix C. All teachers shared their opinions and provided valuable information that was used in the development of their respective themes. A manual coding process was conducted and themes were generated based on participants' answers. Teachers shared their perceptions of bullying and its consequences. According to teachers' responses, they indicated that bullying decreases achievement and causes other pupils to drop out or change schools.

Teachers shared bullying incidents at schools. Teachers revealed they witnessed incidents of bullying outside of school by their pupils. In addition, some of the pupils agreed that they reported incidents of bullying to the appropriate authorities, which helped to solve the bullying problem in school. Teachers explained that most of their pupils have reported a few incidents of bullying outside of school, which helped them to use appropriate measures to stop it. Although some teachers said they did not report bullying, most teachers admitted they did have to report bullying to school administrators, advisory committees, and others.

Bullying Reduction Strategies. The topic of methods to prevent bullying was formed from the teacher's and pupils' responses (Galal et al., 2019). Teachers' answers were analyzed and similar phrases were coded, resulting in a theme of strategies to reduce bullying. The codes that were used to create the main theme were rules policies and disciplinary measures.

Teachers were asked about any strategy given by school administrators to reduce the number of bullying perpetrators and improve achievement. Teachers stated that the school has a school policy and a school rule set to decrease the level of bullying in the school. Teachers also referred to school disciplinary measures developed in schools to punish pupils involved in bullying and the bullying practice. In terms of school rules, teachers feel that they are already in place, which helps teachers and pupils understand the bullying consequences.

The data analysis and coding process provided valuable themes discussing bullying at school. Teachers and pupils believe that bullying is common in schools and is practiced by pupils toward others. They believe that bullying happens mostly in the school environment: in classrooms, and during games. Teachers explained that pupils report incidents of bullying outside of school, which mostly happens either on their way to school or when children are walking to school. Moreover, the main place where bullying happens is when pupils are on their way to school or when they are walking to school. Bullying in school has been found to decrease achievement and lead to pupils' deaths, Some may drop out of school and others may change schools. Because of this, teachers believe there are several school rules and disciplinary measures to curb bullying. However, pupils believe that these policies are ineffective because incidents of bullying continue to increase. Pupils believe that those who are punished or suspended from school continue to bully others.

Conclusion. This research studied the impact of bullying on pupils' academic achievement at school. The study showed that verbal bullying, physical bullying, and social bullying are common in schools and have negative consequences. These types of bullying mainly occur in the school environment, such as in the classroom, or when pupils come home or go to school. The study showed that bullying in schools hurts pupils' behavioral and academic achievement behaviors. The study showed that bullying causes pupils to become fearful, and panicky, and stop engaging in class, which leads

to poor academic achievement. The study also found that the perpetrators of bullying were mostly older pupils who bullied younger pupils, causing many pupils to drop out and others to change schools. The study results also showed that victims of bullying develop negative attitudes toward education, which affects their academic achievement. Bullying outside of school is reported by the victims themselves, and teachers and school administrators take steps to mitigate it. Research has shown that school rules and disciplinary measures have been put in schools to help prevent this bullying behavior. However, they are not effective in combating bullying as incidents continue to increase and most pupils engage in such behaviors.

Recommendations. The bullying aspect of schools provides the framework for enforcing school regulations. The research results suggest that schools should recommend that all pupils and teachers enforce rules to reduce bullying incidents. The research showed that teachers should be role models for pupils in following rules to avoid bullying incidents. These recommendations are made based on the fact that most pupils are impacted by bullying. Thus, enforcing school rules regarding bullying can help in preventing bullying.

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METHODOLOGICAL APPROACH AND PRINCIPLES OF RESEARCH ACTIVITY DEVELOPMENT OF UNIVERSITY TEACHERS BASED ON ACTION RESEARCH

Abstract

The article is devoted to the problem of developing the research activity of University teachers based on the integration of the Action Research into their professional practice. The article presents the substantiation of methodological approaches and principles of Action Research implementation as non-formal method of developing research activity of university teachers.

The analysis of the results of foreign and domestic studies revealing modern technologies for the formation of research competencies of teachers is given. The possibilities and advantages of non-formal forms of research as Action Research as an effective mechanism for personal and professional growth of university teachers are considered. The substantiation of Action Research methodology and conceptual foundations of the method in relation to the educational system of the Republic of Kazakhstan are given. The principles for the development of research activity (proactivity, self-reflection, creativity, self-development and self-realization, continuity, integration of all types of educational activities, actualization of learning resources, synergy of efforts of the subjects of the educational process) are determined. There are shown prospects for integrating Action Research approach into the educational practice of Universities.

The article reveals the intermediate results of a study conducted within the scientific project on Grant of the Ministry of Education and Science of the Republic of Kazakhstan IRN: AR14872311 "Theory and technology for the development of research activity of University teachers based on the integration into practice of non-formal forms of research as Action Research".

Keywords: methodology, methodological approaches, principles, scientific research methods, research activity, Action Research, research culture, research competencies, proactivity, self-reflection.

Introduction. The implementation of innovative approach and technologies based on the idea to increase the level of science-intensive education is recognized as a priority of the system of modern strategies for the development of science and education. Currently, the success and competitiveness of countries is ensured by integrating science into all spheres of society, supporting research-rich educational programs, involving scientific personnel in the analysis and problem solving. World experience shows the effectiveness of research universities that integrate theoretical training and direct research activities.

For the Republic of Kazakhstan, a priority strategy is recognized as the implementation of quality research and ensuring the continuity of research activities at all levels of teacher training and after graduation during professional teaching practice.

Kazakhstan scientists are developing models for the formation of teachers' research skills, formation of motivation, mastering the methodology and methods of scientific research, design skills and the ability to carry out team research (Abdigapbarova et al., 2021). Currently, teachers with the necessary level of research competence are in demand, which is presented as a pedagogical value reflecting a holistic, integral characteristic of a teacher's personality, manifested in their readiness to form their active research position in relation to himself as its subject (Artamonova, 2017). Also, an important condition for the success of professional practice is methodological culture, including special knowledge and skills, value attitude to this type

of activity (Makarova, 2016). In this regard, the search for approaches, technologies and methods to increase the research activity of teachers and thus improve the quality of education at all levels becomes a relevant direction in education.

In the global educational area, one of the modern approaches to improving the effectiveness of the educational process through the research of educators themselves is recognized as Action Research, which is known in different countries as: "participatory research", "co-operative research", "emancipatory research", "action research", "contextualized action research". The essence of this approach is to conduct research in practice, directly in the course of the learning process in order to improve its quality. The successful integration of this approach in many countries is due to the complex of problems solved with its help, the possibility of application at different levels of the educational system and the cost-effectiveness of implementation through the involvement of internal resources of the organization or the teacher, acting as an interested group of subjects of the educational process. This method allows transforming the teacher's activity from pedagogical to scientific and pedagogical, developing their research activity to a great extent.

In the Republic of Kazakhstan, the starting point for the introduction of Action Research is considered to be the programs of the Higher School of Education of Nazarbayev University. It should be noted that so far this method has been more actively implemented in the system of school education. In all regions of the country, for professional development of teaching staff, developed by the Centre for Pedagogical Excellence together with the Faculty of Education of University of Cambridge, the level programs are being implemented. This experience was practically absent at the level of university education. In this regard, the research was initiated within the framework of the scientific project "Theory and technology of development of research activity of university teachers on the basis of integration of non-formal forms of research as Action Research".

Main part. Mastering research competencies of specialists in the field of education is an important condition for their personal and professional growth, improvement of professional practice and competitiveness. This article presents the results of analysis and substantiation of methodological approaches and principles of development of research activity on the basis of integration of Action Research into their professional practice of University teachers was carried out.

Materials and methods. Analysis of scientific, pedagogical, psychological, methodological literature on the research problem, comparative analysis, categorical analysis, and generalization of data were used as research methods.

The methodological basis of Action Research is the provisions put forward by the founders of this approach J. Dewey, K. Lewin, P. Freire, who called on teachers and students to take active actions and to learn on democratic principles. Developing these ideas, S. Edwards-Groves and K. Rönnerman named as the leading principles of Action Research: contextuality (inclusion in a holistic educational process), commitment (giving and believing in success), criticality in relation to results, communication based on co-operation, collegiality and common goals (Edwards-Groves & Rönnerman, 2022).

J. Aimers (Aimers, 1999), K. Seymour-Rolls, I. Hughes (Seymour-Rolls & Hughes,1995) substantiate the methodology of Action Research and the conceptual foundations of Participatory action research (PAR), which is close to AR in its goals and focus. The authors call the principle of co-operation in a collegial environment the main principle.

A. Erro-Garces and J.A. Alfaro-Tanco consider Action Research as a meta-methodology, a multidisciplinary approach covering various methods of conducting empirical research in psychology, pedagogy, management and many other areas of social practice, based on the cooperation of researchers and practitioners (Erro-Garces & Alfaro-Tanco, 2020).

R. O'Brien reveals Action Research as a research interpretive paradigm that replaced pragmatism and meets the requirements of objectivity, as a methodological approach to solving social problems, as a means of coping in practice with a constantly changing and turbulent environment (O'Brien, 2001).

F. Quayson considers action research as one of the best (but not the only) ways to get an

answer to a research question, to understand and evaluate all its aspects, as this method is based on a deeply grounded theory of professional practice (Quayson, 2019).

B. Somekh's book Action Research: A Methodology for Change and Development (Somekh, 2005) presents a view of Action Research as a methodology uniquely suited to the study of innovation and change. Somekh's Action Research: A Methodology for Change and Development (Somekh, 2005) presents Action Research as a methodology uniquely suited to the study of innovation and change processes. The author argues that Action Research can be a powerful systematic intervention that goes beyond describing, analyzing and theorizing practices to reconstruct and transform these practices at all levels of the educational system, including universities. Methodological principles are described and key methodological issues are discussed. B. Somekh notes that Action Research is action to change and create actionable knowledge and action research from within.

J. Robertson (Robertson, 2000) presents Action Research methodology as a component of a professional development model, as a means of recognizing serious problems in education in the context of a collaborative culture of professionals. The author identifies three principles of action research: data collection about the professional development model, awareness of key problems arising in the course of professional practice; research of one's own practice and reality; and critical awareness of practice by a group of professionals. The realization of a set of principles creates the so-called 'ripple effect' of the unity of theory and practice for all members of the research community. To develop a teacher as a researcher it is necessary to master such skills as goal setting, development of an action plan, orientation in time perspective, skills of active observation, active listening, reflexive interviewing, organization of feedback, critical analysis of practice.

Modern Kazakhstani psychological and pedagogical science retains the traditions of Soviet scientific methodology, which is developed within the framework of the following methodological approaches - personal-activity, synergetic, competence, axiological and others. All these approaches are optimally embedded in the methodology of Action Research, objectifying its main provisions and conditions of implementation.

The personality-activity approach, the foundations of which were laid by L.S. Vygotsky, S.L. Rubinstein, A.N. Leontiev, etc., allows us to consider a teacher as a worker, a practitioner, a researcher. In this case, in the structure of his personality, special emphasis is placed on the motivational component, i.e. on his aspiration to research, to reflection of his own practice, to change the paradigm of a teacher to a teacher-researcher. From the perspective of the personal-activity approach, the teacher's activity is determined by both social and personal factors. Thus, the social determination of activity is determined by the normativity of joint research activity, the need to conform to group goals, taking into account potential positive consequences and risks. Personal individual determination is determined by the personal meanings, goals and attitudes of each subject - participant of the research process, and the activity is manifested individually, but in accordance with common goals.

From the standpoint of this approach it is important to understand Action Research as a group collective activity of a team of teacher-researchers. S.M. Dzhakupov's concept reveals the joint-dialogue activity of the subjects of the educational process of the university. The fundamental idea of the scientist is the transformation of activities different in initial content and orientation into a single system, joint-dialogical in form and cognitive (cognitive) in content. The research activity is revealed as one of the sides of the integral professional activity of a teacher, assuming the activity of the subject, aiming at the transformation of the educational process, motivation, focus on mastering the ways of professional solution of practical problems, mastering professional thinking and creativity. S. M. Dzhakupov considers activity as a form of human activity manifestation, unfolded in time and spatially limited by the result expected and the result achieved (Dzhakupov, 2009).

Based on the action research approach, we can consider as basic for Action research provisions:

- Teacher-Researcher - an active worker;

- the unity of cognitive and motivational and value components of research activity;

- research activity - a process of active interaction with other members of the research group united by a common goal.

The synergetic approach organically fits into the methodology of action research, which is based on collaboration and joint efforts of the research team. This approach has an enormous potential to integrate the multifaceted directions of synergetic on the development of innovative didactics, which includes in its basis the assistance in self-development and self-education from the position of requirements and changes in education, as well as to justify the conceptual foundations of its new positions and the application of innovative technologies in the learning process of adult learners (Taubayeva, 2020). Synergetic approach reveals perspectives in the form of development of self-education, creativity, critical thinking and the possibility of implementing an interdisciplinary approach. At the same time, scholars recognize both the limitations of this approach and the possibilities of its integration with other approaches recognized as leading in the modern educational space (Biisova & Madaliyeva, 2020). When organizing Action research, group research allows to realize synergy of efforts, potentially increasing the role and contribution of each educator as a participant of the research process. In this case, the initiative comes from one of the teachers motivated to improve their professional practice, then a team is assembled to solve the problem by joint efforts.

Competence approach in the development of Teachers' research activity is defined as an important condition for teachers' competitiveness. It is the Teacher's research competencies that contribute to their self-realization and self-improvement, professional and personal growth. Researchers M. Itgel, O. Khajidmaa, O. Purev proposed a competence model for educational researcher: competence model for educational researcher (CMER), which includes 4 factors that unite the competences of an educational researcher. Among them, the leading ones are: knowledge of the subject and related subject areas; knowledge of research methodology; language skills; critical thinking; ability to solve problems and multidimensional tasks; innovation and creativity; confidence in their own ideas and abilities in research activities; self-reflection; collaboration; teamwork, etc. (Itgel et al., 2023).

The axiological approach provides the value basis of research. In this regard, the value characteristic of the teacher's research work is widely disclosed, which can be disclosed from four angles: value for personal growth, value for the quality of teaching, value for students, value for improving the image of the University.

Action research is quite effectively integrated into the project technology, also aimed at the development of research activity of the subjects of the educational process. This trend has been firmly established in the educational environment in recent decades and corresponds to the priority direction of education and science development in Kazakhstan - building scientific and innovative potential by involving teachers in project research activities and its commercialization (Kenzhaliyev et al.,2021). Project research work allows to predict personal and organisational changes in the activity of a teacher under the condition of unity of implementation of problem and empirical components of the research, which, in the end, will ensure its objectivity, reproducibility, evidence and accuracy (Mamytbayeva et al., 2022). Researchers emphasize the importance of forming research competence already at the stage of university education through the involvement of future teachers in project-based educational activities (Kolesnikova & Pustovalova, 2020). Timely involvement in project activities contributes to the active adaptation of students and their inclusion in the professional pedagogical community. The authors name technologies and methods themselves, aspects of education management, innovative pedagogical activities, educational process and the education system as a whole as the subject of project research (Kelesuglu et al., 2023). In accordance with the social order for a teacher who is able to be active in the implementation of innovative processes regarding the design and organization of the educational process. The authors identify the formation of a set of socially important, professional, cognitive and personal motives and

values of the pedagogical activity as the leading condition for the successful realization of the set goals (Mamytbayeva et al., 2021).

Methodological support for increasing the research activity of teachers implies as a necessary condition the mastery of the whole arsenal of methods used in psychological and pedagogical research. Formal methods are universal for all kinds of studied processes and phenomena. They include methods of mathematical statistics, correlation and factor analysis, which allows to establish relationships between the studied components of phenomena or to establish factors in the manifestation of the studied phenomena, as well as content analysis, modeling, analysis and synthesis, logical construction and others.

Empirical methods are aimed at studying the essential characteristic of pedagogical phenomena and processes. This group includes the so-called empirical methods - psychological and pedagogical experiment, observation, survey (written and oral), and analysis of products of activity, method of independent characteristics, expert analysis, and focus group. In pedagogical research, generalization, interpretation, qualitative analysis and formulation of recommendations for the development or correction of the studied properties or phenomena in practical educational activities are mandatory. It is important to form the researcher's understanding of the need to use both groups of methods in unity at different stages of psychological and pedagogical research in accordance with the purpose of the research work. At the same time, considering that substantive methods provide information about the degree or level of development of the phenomenon under study, its features and manifestations, essential characteristics, and formal methods allow these data to be presented in the form of indicator variables, systematized, statistically tested and formally summarized, taking into account that in pedagogy and psychology the data are often latent and difficult to measure directly. Thus, productive in pedagogical research is the focus on a comprehensive in-depth study of a phenomenon based on the integration of research methods.

From a methodological point of view Action Research refers to qualitative applied methods of the research process legitimized as non-formal forms of research. In this regard, the study applies the full range of both formal and informal, non-formal empirical methods.

The analysis of the main methodological approaches allowed us to summarize a number of principles for the development of teachers' research activity on the bases of Action Research:

1. The principle of researcher's proactivity. Proactivity allows making anticipatory active transformations of activity based on continuous self-reflection of one's research activity. Proactivity implies setting proactive tasks by predicting the results of one's activity and putting forward strategic initiatives. A proactive teacher plans his/her actions to fulfill the most important goals and is able to prioritize them. The study of problems in his/her pedagogical activity and taking measures to solve them become important goals (Lebel & Patil, 2018).

2. The principle of reflection and self-reflection. As is known, an important component of Action research is reflection and self-reflection of professional practice. A teacher-practitioner, in parallel with teaching, is engaged in self-research of his/her activity. As soon as the means and methods of his/her own pedagogical activity become the subject of his/her research (i.e., reflection), we can say that research is already underway. This process is visualized in Figure 1.

Figure 1: Transformation of a practical teacher into a teacher-researcher

3. The principle of creativity and creativity. It reveals the teacher's predisposition to transform educational reality, to create socially significant work products, to be creative, to bring a new solution to the problem, based on research activity (Dubovicki, 2018).

4. The principle of self-development and mastering the ways of self-realization. The meaning of research in action is the possibility for the teacher to analyze and revise his work, to realize real communication with colleagues, to see the problems, to make a research report on the activity. The main question that an educator applying the Action Research approach asks himself is: "how can I improve what I do?", and the teacher shows both interest in changing his/her activity and in developing himself/herself as a person and a professional. Mastering the method of Action research allows to realize the personal potential of each teacher, relying on the components of personality orientation - value orientations, attitudes, motivation, and others.

5. The principle of continuity (continuity). Research has a continuous character, acting as a process of spiral unfolding with the realization of continuity of research levels. As a result, there is a constant improvement of activity and deepening and expansion of professional knowledge, i.e. with each turn of the spiral the research rises to a higher quality level (Coulange et al., 2021).

6. The principle of integration of all types of educational activities in the educational space. Action Research allows to improve the skills of analyzing its activity and to realize the unity of all its directions and, as a result, to improve the quality of teaching. In this aspect Action research is close to non-formal methods in its characteristics, as it is carried out in the whole space of life activity, directly proceeding from the needs of everyday practice.

7. The principle of actualization of learning resources, ensuring the possibility of applying the acquired competences in practice "here and now". In order for a teacher's pedagogical findings to be used by him/herself and passed on to others, they must be conceptualized in the categories of pedagogical theory. Action research generates knowledge around research in practical educational contexts and allows teachers to learn through their actions, through their experiences, through their research into their own professional activities.

The implementation of Action research into professional practice contributes to the actualization of resources of the educational process, the creation of experimental sites directly in the educational environment, becomes a potential incubator of new technologies, contributes to the creation of research laboratories for the professional development of teachers

Results and discussion. Analysis and generalization of the experience of teachers who have achieved specific successes in their professional activity shows that professional self-improvement should begin with a detailed analysis of the causes and consequences of achievements and shortcomings in their pedagogical activity. As the analysis of the best world practices shows, one of the approaches recognized as effective in the formation of research activity of university teachers is Action research. In the Republic of Kazakhstan, this approach has been spreading in recent years and is being integrated into educational practice for the development of teachers' research activity at different levels of the education system.

It should be noted that the idea of Action research in Kazakhstan has been actively researched since 2012 by the Centers of Pedagogical Excellence functioning in all regional centers of Kazakhstan. In schools of the republic, teachers used Lesson Study as an invariant of Action research. Teachers and head masters were trained in the concept of Lesson Study through professional development programs on updating the content of secondary education. By engaging in Lesson Study, teachers build their professional level, learn how to integrate scientific ideas into school practice. Also, since 2018, the centers of pedagogical excellence began to train research coaches who acted as facilitators and provided targeted assistance to teachers in solving real pedagogical problems directly in practice. The best research practices have been showcased in the world symposia on Lesson Study (Beijing (2018), Amsterdam (2019) and Macau (2021).

Noting the relevance of Action research as an important mechanism for improving professional practice, the research team of the Ministry of

Science and Higher Education (MSHE) grant project is working to integrate this approach into the practice of university teachers in the country (Baydildinova et al.,2022). The importance of this study is also justified by the fact that the requirements for school teacher certification include the presentation of the results of non-formal forms of research such as Action Research or Lesson Study. In this context, the development of methodological approaches and principles of Action Research implementation will provide theoretical knowledge not only for university teachers but also for school teachers. The practice-oriented nature of Action Research allows teachers to integrate scientific knowledge in practical educational contexts and allows teachers to learn through their actions, through their experience, through their research into their own professional activities. A valuable experience in conducting this research is the professional collaboration of the research team with academics at the University of Cambridge and the research internship (2023) on the theoretical underpinnings of Action Research and its planning, supervised by Dr E. Wilson from Homerton College, University of Cambridge.

Action research has a great potential for the development of teachers' research activity. A research approach integrates different forms and types of research. The implementation of Action research contributes to the actualization of resources of the educational process. In this regard, the analysis and generalization of the development of this approach at the level of professional activity of university teachers is currently becoming a relevant area of research. In order to successfully integrate Action research into the research process, teachers need to strengthen their theoretical training, master the methodology, innovative technologies and methods.

Conclusion. The world educational practice actively develops models and methods of teachers' research activity development. One of the effective methods is recognized as Action Research, which unites teachers aimed at ensuring the quality of professional activity through their own research activity directly at their workplace, which acts as a research platform. Based on the principles of researcher's proactivity, reflection and self-reflection, creativity and creativity, self-development and mastering the ways of self-actualization, continuity, actualization of learning resources, synergy of efforts of the subjects of the educational process, Action research integrates different forms and methods of research directly in the practical activity of teachers, which ensures its efficiency and effectiveness. The effectiveness of integrating Action research into professional practice is a necessary condition that ensures sustainable change in pedagogical practice in higher education organizations.

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METHODS AND TECHNIQUES OF REMOTE ORGANIZATION OF FIELDWORK IN GEOGRAPHY LESSONS

Abstract

Fieldwork is of great importance as a cognitive activity. The article identifies several issues related to the organization of educational fieldwork in general education schools in geography - the inconsistency of educational bases with the forms of educational field practice, and improper performance of educational fieldwork due to the high level of safety rules.

In the course of the research work, an analysis of theoretical and practical scientific works was carried out, and a survey of geography teachers in secondary schools was conducted. By the results of the survey received at the level of the republic, new opportunities for solving the identified issues will be analyzed, and conclusions will be given.

During the analysis, it was suggested that activities at all stages of the organization of hydrological training and fieldwork can be carried out through digital platforms that are conducted remotely. In this regard, the organization of field training in a remote format requires the use of digital resources.

It is clear from the results of the survey that the work of field practice is not always carried out in the traditional format. The methods of organizing hydrological fieldwork at school and the possibilities of using digital tools are determined, and methodological approaches to geography teachers are proposed.

Keywords: geographical education; pedagogical technologies; teaching methods; research activities; field practice; digital resources; online whiteboard.

Introduction. The standard curriculum of secondary general education in geography in Kazakhstan in textbooks for grades 7, 8, and 9 in the sections "Physical Geography. Hydrosphere" and textbooks of the natural-mathematical direction of the 11th grade in the section "Nature Management and Genecology. Nature management" provides information about the elements of the hydrosphere and hydrological objects.

While the principles of pedagogical activity are reflected in the results of the work, the results of the principles are traced to the meaningful performance of educational fieldwork and the competence of the student. For the fieldwork to be aimed at the cognition of the environment or a certain natural object, the teacher must be competent as a geography teacher. Therefore, the importance of training and fieldwork lies in the content of the tasks performed. In the course of fieldwork when teaching geography, a subject teacher can effectively use techniques and methods that help a student recognize natural objects, develop thinking skills, train research skills, use them in everyday life, help determine intellectual potential, increase interest in conducting scientific research and you can get results.

For the practical integration of theoretical knowledge of students in geography, educational fieldwork is organized. As a rule, field practice is carried out in a traditional format on the school playground using various measuring instruments. The difference between hydrological training and fieldwork from other practices is that the surface of the Earth is carried out near water bodies, which requires a very high responsibility of the geography teacher. This is because the teacher and the school administration are directly responsible for the safety of students' lives. The research paper presents methods and techniques of work and remote execution of

tasks in the course of hydrological field practice, which allows you to consolidate the theoretical knowledge gained by teachers and students in geography, and research competencies.

In geography lessons, with the help of remote technologies, students get acquainted with data on the specifics of the geospatial location of natural water bodies on the surface, hydrological indicators, ways of formation, economic significance, and the current dynamic state (Stagg et al., 2022; Xu & Ouyang 2022; Bianco et al., 2021). To further develop the students' research skills, the teacher needs to offer tasks aimed at developing students' critical thinking skills, the ability to analyze and generalize, evaluate, arousing interest with the help of digital platforms in the educational and methodological direction (Bogiannidis et al., 2023). The combination of theoretical knowledge with practical knowledge allows students to independently conduct research work through fieldwork in the future (Tenison & Sparks 2023).

Main part. In geographical education, fieldwork is an activity that occupies an important place, and it is closely related to the result of the rational application of field research methods. The concept of "field work" refers to the local location of the territory or object on which the study is being conducted, that is, to the method, and the experience of the study, but was considered as an object of research. Since the 1980s, the concept of "field work" has been used as a new context (Leininger-Frezal & Sprenger, 2022).

Fieldwork is a special tool that allows students to study geographical information at a high level and develop close relationships between students and teachers. The joint activity of students includes practice-oriented teaching methods in the educational process (Friess et al., 2016).

The use of new pedagogical methods and techniques contributes to the development of students' learning activity, creative and critical thinking, and the improvement of research skills (Muñiz Solari & Schrüfer 2023). Fieldwork plays a key role in geographical education. Fieldwork allows students to learn more deeply the content of the subject geography, the system of research tasks set in the classroom, and correlate the situations of everyday life (Mann & Saultz 2019). In addition, students study ways to solve research problems, communication and research skills, and educational and fieldwork is carried out through a personality-oriented approach (Kim, 2020). The learning process is interactive and practice-oriented, and the main components of geographical education are based on real experience (Wessel 2021). Extracurricular elective courses on field research methods are necessary for students when organizing educational field practice. As a result of these classes, the internal personal qualities of students improve, i.e., observational, organizational, and cognitive abilities (Li et al., 2022).

Purpose of study. The article identifies several issues related to the organization of educational fieldwork in general education schools in geography - the inconsistency of educational bases with the forms of educational field practice, and improper performance of educational fieldwork due to the high level of safety rules.

Materials and methods. *Data collection tool.* An analysis of theoretical and practical scientific works was carried out, and a survey of geography teachers in secondary schools was conducted.

Participants. The survey was attended by geography teachers of the schools of Almaty, Almaty region, Ili district, Uygur district, Talgar district, Kyzylorda region, and geography teachers in Shymkent, Turkestan region and other regions. The number of respondents is 74 (100%). Of these, 86.5% are teachers studying in schools in rural settlements, and 13.5% in urban schools.

Data analysis. The results of the survey were analysed quantitatively, using descriptive statistics.

Results. *Analysis of theoretical and practical scientific works.* Field training practice contributes to the employment of students in research work. Students use a textbook on the topic of the hydrosphere, additional special literature, necessary information, and Internet sources. Conducts a review of reference data by the object of the study. Practical work keeps records of the actions performed, fully performing tasks by the purpose and task.

Field practice is of great importance as a cognitive activity within the framework of educational goals. In the context of educational activities, it contributes to the knowledge of

nature, geographical objects, and the formation of local historical values, the development of moral qualities. Field practice leads to the development of students' research skills, and research skills further improve the methodology of geographical education (Gordashevskaya, 2013).

Research skills and abilities are the main competencies when performing field practice in geographical education. The components of research skills include systematization of problems, argumentation of hypotheses, fulfillment of research goals and objectives, and analysis of results (Chizhakova & Bocharov, 2019). Educational fieldwork should present the results of the research in a certain form (report, article, wall report, electronic presentation, poster) outlining the algorithm for performing practice-oriented tasks and the results of the work on the result of determining the purpose of the research work of students. The results obtained during the observation and control, measuring work determine the relevance of the field practice of analysis using the scientific method and methods. The main unique natural objects in the implementation of hydrological field practice are surface water bodies. The study of water bodies is carried out after determining the geological structure, relief, and hydrogeological condition of the territory (Maslyayev et al., 2021).

When conducting field practice, school students should have the following competencies: *independent thinking, data processing, analysis of information related to the subject of research, motivation to work, ability to analyze scientific literature, strengthen geographical knowledge, work with modern research instruments, process field laboratory information, organizational qualities, graphic processing, mathematical and statistical calculations, analytical analysis of the object of research, possession of oratorical abilities and critical thinking skills, hydrological assessment of the object* (Pogodina, 2019). In textbooks taught in secondary schools, fieldwork is often expressed in the performance of practical, practical work. But, due to the safety of students' lives, field practice in the curriculum is not performed at its level. There are several reasons for this (not visiting natural objects without parents due to the age restrictions of schoolchildren, strict requirements of safety rules near water bodies, and compliance with safety in case of natural disasters related to the seasons, etc.). Given these compelling reasons, it is possible to organize distance learning and fieldwork, transforming practical and practical work by digital means.

Geographical education occupies a special place in the development of noospheric society. Field practice occupies a special place in the training of geography teachers in higher educational institutions (Artvinli et al., 2022). Research and control work should be comprehensively organized in general education schools. This is evidenced by a survey of geography teachers at the national level, which is conducted in any form.

Results of survey. According to the results of the survey, "Do you conduct practical classes by the curriculum?"86.5% answered "yes" to the teacher's question, and 13.5% - "no", that is, they do not carry out saraman work (Figure 1).

According to the instructions of the curriculum, one practical lesson is given in each section. In practical classes, students work with visual aids on a physical map, thematic maps, Internet resources, photographs, electronic resources, etc. Research activities are characterized by tasks aimed at analyzing the object of research. Therefore, practical exercises should be carried out by the plan.

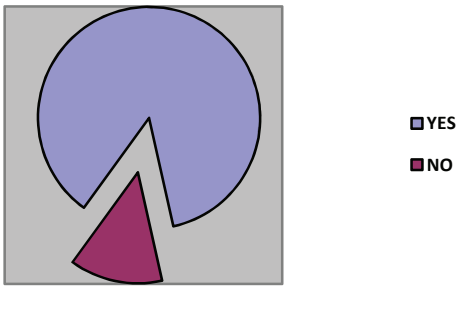

Figure 1. Survey results on the question *«Do you conduct practical classes by the curriculum?»*

It should be noted that field practice is an activity that occupies an important place in the training of professionals in higher educational institutions, and in secondary schools It is a competence that helps students comprehensively develop field practice that forms research skills. In general, secondary schools, due to the age characteristics of students, it is not allowed to visit natural water bodies without their parents, due to the strict requirements of safety rules near water bodies and safety considerations in case of natural disasters associated with the seasons, etc. field training is not carried out. Therefore, practical tasks by the plan and the requirements of field practice for the curriculum should be performed continuously. In the questionnaire questions, the question is asked about the performance of fieldwork in the classroom or outside of school hours. 74 replies were received (Figure 2).

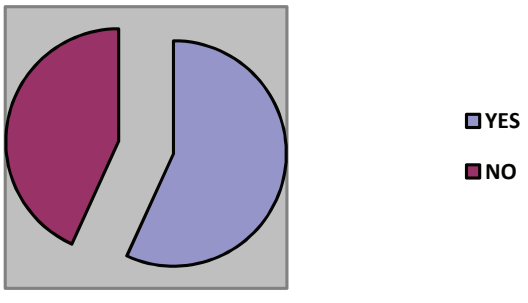

Figure 2. Survey results on the question
«Do you organize fieldwork in the classroom or outside of school hours? »

56.8% of teachers answered "yes", and 43.2% - "no" to the question about the organization of fieldwork in the classroom or outside of school hours. The development of students' knowledge and skills based on research skills in teaching, and orientation to independent problem solving contributes to the achievement of the goals of field practice by students.

Discussion. To the question of what methods and techniques are used in the organization of educational field work, teachers recorded their opinions in the survey. In the feedback received, teachers met such answers as "*non-allocation of special hours for field work, inconsistency of educational bases with the forms of field practice* and in others - *"organization of a special one-day hike, conducting fieldwork with students, orientation work"*. By the results of the survey, the following issues can be identified: *insufficient performance of tasks and methodological assistance that helps in improving research skills; improper performance of educational fieldwork due to the high level of safety rules.*

To solve these issues, the theoretical information obtained can be carried out through practical management, control, and study using the help of digital platforms. In this regard, since field practice is not often implemented in general secondary schools, the following types of work can be included in the chain of practical, research, and practical tasks. At the initial preparatory stage of practical work *Airpano.ru, you can use a virtual tour project*. This program is a photo project consisting of a collection of professional high-quality panoramic photos and videos. Helps in the implementation of field training practice in the online orientation of the source object, supplementing the received theoretical information with visual aids. During a virtual journey through this photo project, morphometric indicators of the relief and other water sources allow you to track the location features and the impact of River-lake objects on everyday life and navigate in the direction of 360º. The figures below clearly show the work on the orientation of a hydrological object at a high-quality level (Figure 3). First of all, to create a tour project, you need to connect a personal computer or laptop to the Internet. The photo project can be used for free, but it is paid due to some levels of digital data. Using it as a theoretical source of information when performing orientation work is very effective.

In the course of this task, variants of traditional and remote methods of field training were given. In both variants, tasks were given that, according

to the work plan, will allow students to fully achieve the goal of field practice (Mussakhan & Borankulova, 2022). The research work established that the proposed approaches will be implemented during the preparatory and fieldwork when studying the sources of water bodies of the photo project. In this regard, the orientation of geographically different objects can be offered in daily geography lessons as an auxiliary electronic methodological resource.

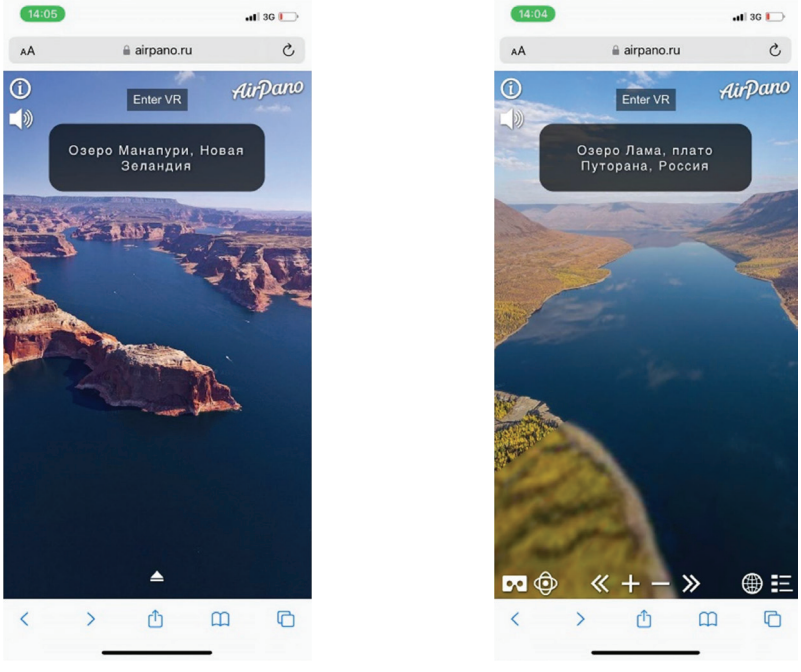

Figure 3. Hydro-orientation in the Airpano virtual tour project

When orienting photo projects, it is advantageous to use the "smartphone" tool. First of all, the internet and the internet source must be browsers. You can log into the photo project by writing the name of the photo project in the browser. You are writing the desired object for the search sign, or there are already ready-made objects in the templates. In the images above, you can take a fresh look at the 360º virtual tour by pressing the "Enter VR" button. You can conduct orientation work as if admiring a real object. During operation, the button at the top of the "sound" button allows you to view the object live by pressing the "globe" button to see the position of the object on the world map, the "+/-" buttons to zoom in or move the object, the button at the top of the "sound" button provides information about the object. An electronic auxiliary resource for use when familiarizing with objects using identified elements, fixing, mastering a new lesson, and strengthening theoretical knowledge during training and fieldwork. At the next stage of the practical lesson, after work and familiarization with theoretical information, to control the main water bodies. That is, on the presented online board "Classroomscreen", students will be able to present practical work to group members. This visual online whiteboard was invented by a Dutch teacher. The teacher has created an online whiteboard that combines and uses for free all the important elements that are convenient for him (timer, image loading, infographics, drawing mode, background insertion or structured drawing related to the lesson, language selection, etc.). The online board "Classroomscreen", consisting of many features, contributes to the visual, understandable provision of information obtained during the successful conduct of practical classes. During the control work with the online whiteboard, many advantages were revealed (Figure 4). Students in the first part of the practical lesson Airpano.ru in the virtual tour project, focused on the necessary form and collecting theoretical information, on the online blackboard "Classroomscreen", performing actions defined for the lesson, the class can offer students work in the last reporting part of the lesson, as infield practice.

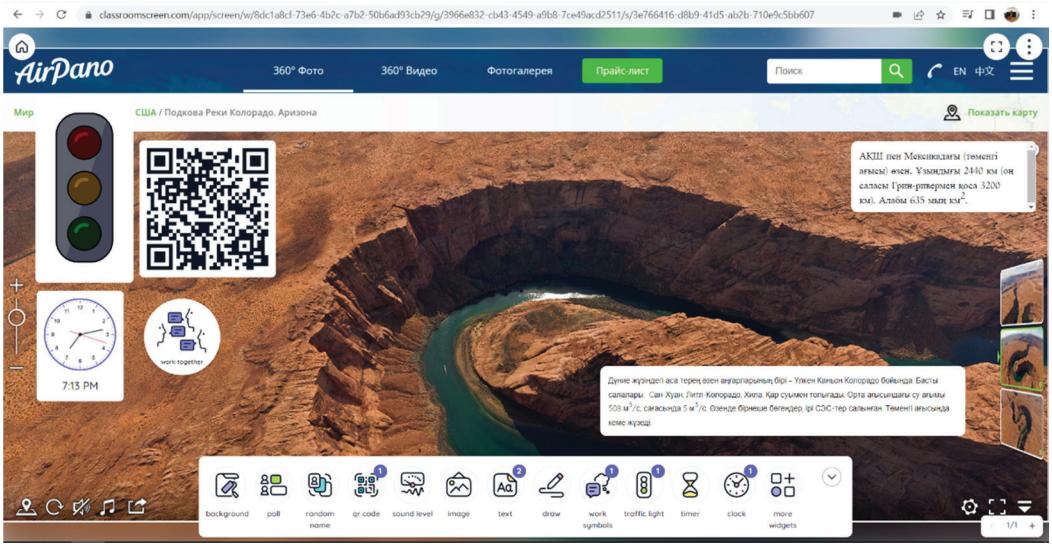

Figure 4. Work on river analysis on the online board "Classroomscreen"

By logging into the online board "Classroomscreen", and clicking on the "background" button, the object of research is entered against the background, information about the object being studied during the practical lesson and the analyses revealed during the study can be added to the image of the object. You can use the "Traffic light" button as a means of communication with other people. Red - there is a question or need help, yellow - indicates the progress of the work, and indicates the result of the work. The "Clock" button helps to keep track of the lesson time or time limit when presenting an object being studied between groups. The "Qr-code" button shows the address of a link to other additional information or sources from which it was obtained. In the presented research paper Airpano.ru there is a link with additional video information about the Colorado River in the virtual tour project. The "discussion" button is included on the panel page in the proposed research paper to attract the attention of students and recall the purpose of the lesson. Figure 4 shows the result of the work carried out in the reporting part of the practical work. Using it as a visual aid in geography lessons and other subjects studied not only increases students' interest in the lesson but also is a methodological auxiliary application for teachers, a resource for finding students, as well as an important method in achieving educational goals in the classroom. A student doing research work "Airpano.ru "after watching additional video information and video data about the Colorado River in the virtual tour project in a live format, the information received and the teacher, performing tasks with orientation, individually or in groups, penetrate the online board "Classroomscreen", analyze opinions, conclusions about the collected data and record it on the online board. After submitting a research paper as feedback, you can ask for help from the online board "Padlet". The Padlet online whiteboard is an online whiteboard with stickers that can be used in all subjects while working collectively using a computer and smartphone. Features of the online whiteboard "Padlet": The teacher can give students a task during the lesson with a link; with the free version, you can use three different windows; includes many designs; *Using eight different templates (brick, any shape, ribbon, sequence, grouping, chat, map usage, chronology), he can help in using brainstorming functions and methods, questions and answers, as well as feedback, which he uses by the topic of the lesson and the purpose of the training.* The effectiveness of this online whiteboard in the performance of feedback work was demonstrated in the remote performance of training and fieldwork (Fig.5).

The online board "Padlet" was used to establish feedback when determining the effectiveness of field training during remote passage. That is, the teacher passes the link to the students through the means of communication, and the students open the received link and

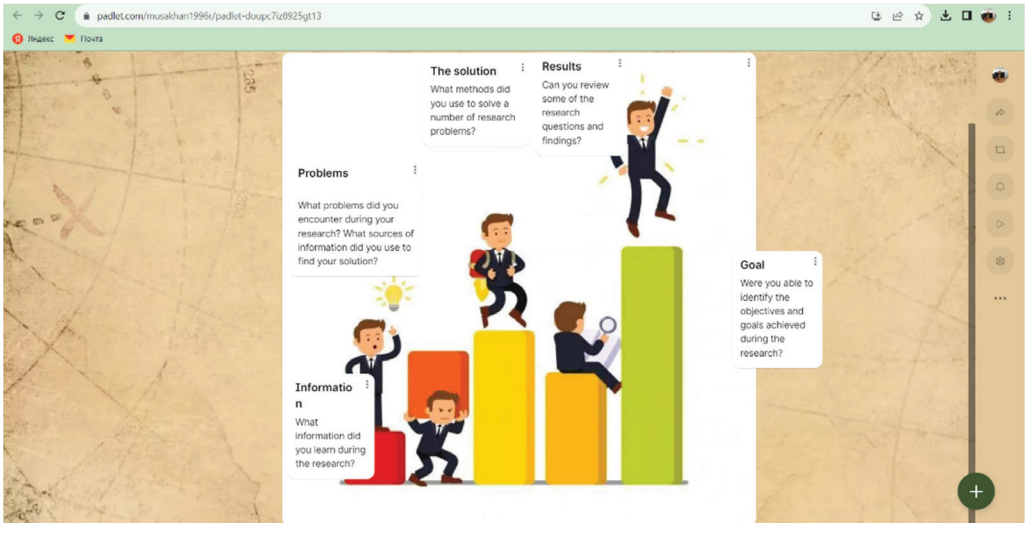

Figure 5. Feedback on the online board "Padlet"

answer feedback questions by the results of the work performed during the study. In this author's research paper, students answer by choosing an information ladder, during the research they can only analyze the information and determine whether they are familiar. If a ladder of problems is selected, it analyzes the information during the research, shows the level of problem-solving, and chooses a ladder of solutions–it can analyze information, identify problems, and propose solutions. Students who have fully completed the research work can easily respond to the results and goals of feedback because the information is analyzed, problems are identified, answers to solutions are found, results are found, and they prove that a student can not only fully achieve the lesson goal, but also independently perform field work remotely, having a direct impact on the development of students' research skills.

Currently, it is known that the use of teaching methods on topics about the Earth, climate, nature, and the environment with the involvement of goals and objectives to increase the interest of students is carried out directly using digital tools. In the perception of information, students cannot fully assimilate what they have heard, they perceive information visually (Akisheva & Borankulova, 2022). In addition, conclusions about the importance of digital tools are becoming increasingly relevant in studies of the updated content of education. Education is not only the teaching or interpretation of accumulated knowledge, but also the teacher's ability to master, apply, and direct pedagogical and digital technologies, adapt to new social changes, manage emotions, and be able to work with an information resource (Kusherbayeva & Orakova, 2021). When implementing the recommendations and conclusions in the study, students:

- can set goals and objectives when performing search and analytical work when solving any tasks;
- In the process of achieving the results of the study, hydrological objects can be considered by students in various ways;
- analyzes the results of the conducted research;
- it is organized in studies conducted separately from individual couples, and groups during the work being carried out;
- Respecting the opinions of other students, they will adapt to the new environment and develop the values of responsibility (Abdikarimova et al., 2021).

The main thing is not to use information and communication tools only in your interests, but to combine them with the educational process and form research skills during training.

Digitalization of education is an activity consisting of digital competencies, which is inevitably necessary in teaching, and requires new changes in the role and activity of the teacher (Stukalenko et al., 2021 p. 85). Formulated the concept of digital educational resources (DER) as an effective tool in modern research and

determined that their widespread use contributes to the simplification and improvement of education (Sardarova et al., 2022). Control activities in pedagogical education, and conducting research work are significantly different from paperwork and writing in the classroom. There are two different problems: limiting activity within the class and limiting the use of technical means. But, without remaining in a limited space, you can accept the concept of a "window for practice", gain experience and observe a known observer object. The possibilities and greater accessibility of video viewing with the help of 360-degree VR headsets can expand the database of information when oriented in any space. It has been found that using conventional images for classroom control work helps teachers to conduct reflection and analysis, obtain evidence of improved experience to increase confidence and emotional readiness, observe alternative teaching methods, challenge pedagogical forecasts and problems, and link learning theory with practice. Video tutorials attract teachers looking for authenticity (Cross et al., 2022)

Conclusion. New ideas and digital tools are of great importance in improving students' cognitive activity, research skills, and the effectiveness and quality of the educational process. Significant changes in society not only affect the education system but also cause requests to improve the efficiency of the learning process.

It is established that the organization of educational and fieldwork, depending on the results of the survey, is carried out infrequently. The researchers suggested that its solution could be carried out using remote approaches – digital tools. Based on the above, digital learning is a pedagogical system characterized by functionally developing activities with new, continuous structural features. This happens not only through the discovery of ways of development in the fields of theory and methodology of lifelong learning but also through the methods of rational learning with the help of new technologies.

Modern learning is a set of methods that focus on teaching students and improving their game, and behavior with the help of various new ideas in the curriculum. Teaching with the help of digital tools is directly related to the scientific and methodological activities of teachers and the research ability of students. When studying each discipline, depending on the purpose of the lesson, classes, and field practice conducted using digital platforms, online whiteboards are rationally conducted.

When a student works on solving a problem, planning and checking solutions are his main activities. In the process of solving research tasks, the student observes and analyzes information about the object of research. That is why the student's personality and abilities are developed through research skills. This may affect the quality of full participation and familiarization of the student with the object of study, the use of research, and research activities. In addition to learning, gaining knowledge, and vocational training, students also study moral and spiritual values. Digital educational resources provide students with ample opportunities for remote organization of field practice.

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THE USAGE OF EDUCATIONAL WEBSITES AS A DIDACTIC TOOL IN THE EDUCATIONAL PROCESS

Abstract

An educational website is a didactic tool that can be used by a teacher during the educational process. An attempt has also been made to present the most popular and sought-after educational websites. This article aims to focus on educational websites, determine their quality as a didactic tool for the educational process, present the digital educational websites of Kazakhstan, analyze the three most popular ones, and point out their features and shortcomings. An analysis of the three most popular websites was conducted: Bilimland, TopIQ, and Daryn online, whose positive aspects and disadvantages were identified. The observation method, literature review, and a review of existing educational websites in Kazakhstan were used to collect data. Virtual education platforms, websites, and digital games provide an unlimited number of additional tools that can be used anywhere, anytime, where there is an electronic device and an Internet connection. This allows for both synchronous and asynchronous interactions and constant communication between student-teacher and student-student. The result is effective classroom collaboration. Therefore, we define educational websites as an indispensable didactic tool for teaching.

Keywords: digitalization of education, educational websites, technologies, online learning

Introduction. In today's world, technology is part of many people's daily activities, especially the learning process, where teachers and students are in constant contact (Bianco et al., 2021). It is well known that the introduction of various types of technological tools into the educational process allows for improvement and simplification of the educational process (Keser & Semerci, 2019; Zhang & Hennebry-Leung 2023).

Virtual learning platforms, websites, and digital games provide unlimited additional tools that can be used anywhere, anytime with an electronic device and an Internet connection (Gubbels et al., 2022). This enables synchronous and asynchronous interaction, and constant communication between student-teacher and student-student (De Carvalho & Bauters 2021; Yoshioka & Gallavan 2021; Becirovic, 2021; Camas Garrido et al., 2021). The result is an effective collaborative activity in the classroom.

Digital platforms not only create the conditions for organizing the educational process, but are also a means of self-realization that allows teachers to share experiences, create an educational product as part of their professional activity, present their developments and achievements to colleagues, and participate in professional and creative competitions (Laufer et al., 2021; Egarter et al., 2021; Menshih, 2019; Dobrynin, 2008; Kovtonjuk et al., 2022). In addition, Internet resources serve students as an educational platform, a source of data, and an interesting tool for easy information retrieval . It should be noted that educational websites play a special role in the pedagogical process, self-development process, and the concept of lifelong learning as components of the Internet space. By an educational website, we mean a platform that contains a system of electronic information documents with which a targeted learning process is implemented.

One can distinguish between distributed and restricted educational websites (Panjukova, 2010). The former includes resources that are distributed across a local or global network and

are available to many users simultaneously. Electronic publications for educational purposes are limited, they are issued on physical media, their disadvantage is the complexity of additions and changes. Focusing on this definition, educational websites belong to the group of distributed resources.

Main part. The number of educational websites is constantly increasing, and the need to further disaggregate and typify them enables teachers and learners to search and use Internet resources more effectively. Researchers Griban & Griban's (2015) classification of Web sites is presented in Table 1.

Table 1. *Griban and Griban's classification*

Name	Distinctive signs, examples
Websites of educational institutions	Information about the activities of the educational institution; A platform for teachers (presentation of achievements)
Distance Education Websites	Organization of educational process through telecommunication networks
Websites that distribute educational information	Electronic access to modern scientific and methodological literature, for example, virtual libraries; magazines and newspapers on the topic of education; virtual museums, etc.
Websites for conducting scientific research	Sites of research works of students, students, teachers, lecturers, and scientific workers, virtual scientific laboratories, creative workshops, and research and training centers are placed.
Websites of an informational and reference nature	This category includes electronic encyclopedias; dictionary sites; catalog sites; databases; and information sites about scientific and educational conferences, competitions, seminars, and grants.
Websites of competing internet projects	Sites of Olympiads and quizzes; sites of information and entertainment projects on the topic of education; resources for educational contests, etc. Usually, such sites offer the possibility of obtaining certificates and diplomas.
Websites of educational and methodical associations	Websites of the methodological association of teachers on school subjects; sites for thematic teleconferences and webinars on educational issues; online sites of creative interaction of teachers, and lecturers; sites for professional development of pedagogical personnel.
Educational communities in social networks	Thematic associations of teachers based on professional interests (for example, associations for teachers), provide an opportunity to communicate with colleagues, exchange experience and information, and introduce oneself.
Educational web services	Sites that allow you to create and save educational products (for example, presentations) in real-time, such as prezi.com

This classification is detailed and too fragmented because over time the functionality of websites has expanded, for example, there is no need for educational communities in social networks because each website implies grouping by interests, and presentations and video materials are the most important information on all websites (Alfayez 2021; Karic et al., 2020).

We can also consider the classification of Mansuri (2023), which divides educational websites into the following groups:

1. E-learning web portals;
2. Digital Content Serving Sites;
3. School Educational Video Websites;
4. Language-Learning Website;
5. Online Courseware;
6. Tertiary Educational Websites;
7. Learning Management System.

However, we believe that the name should be changed because these tools are used not only in school education but also in higher educational institutions.

In this classification, we would like to highlight "Educational Video Sites in Schools", which include educational websites with games, videos, or subject-related resources that serve as tools to enhance learning and teaching in the classroom (Valencia et al., 2017; Salakhova et al., 2021). These websites help today's students make lessons more interesting and engaging.

It should be recognized that these digital educational platforms have become a qualitative addition to the learning process, increasing significant student achievement and motivation, as well as facilitating the acquisition of the material (Vázquez et al., 2017; Schwan & Cress 2017). In addition, it should be noted that it will be difficult to conduct a lesson without a curriculum, methodology, coordination with an educational institution, and technical equipment for all participants of the process, as well as without basic knowledge of the use of virtual tools (May et al., 2023).

Purpose of study. In this article, we would like to focus on educational websites, determine their quality as a didactic tool for the educational process, present the digital educational websites of Kazakhstan, analyze the three most popular ones, and point out their features and shortcomings.

Materials and methods. Mixed research methods were used in the study.

Participants. Participants included students and teachers in Kazakhstan.

Data collection tools: The observation method, literature review, and a review of existing educational websites in Kazakhstan were used to collect data.

Data Collection Process. As part of the analysis, participants, i.e., students and teachers, rated the above educational websites' value according to Toufaily, Zalan, and Lee on a 10-point scale. From this, an average indicator was formed. The results are shown in Figure 1. And the methodologists found that the material conformed to Bloom's Taxonomy.

The process of analyzing websites for students and teachers was conducted in three separate phases:

1) Getting to know the evaluation categories of each website, i.e., determining its functionality; forming its status; grouping by status, school, or interests; self-development; feelings when using the website; aesthetics of the website; novelty and informativeness of the presented material.

2) Show the selected pages, obtain permission, and register the respondents for each survey. Self-introduction, use of the website.

3) Go through a survey in which each item defined above is rated on a 10-point scale. At the end of the "Conditional Component" question, there are given brief comments about difficulties in use.

The process of analysis for the methodologists was slightly different, i.e., in the beginning, it was a review of the structure of Bloom's Taxonomy, then familiarization with the selected websites, and finally a group discussion.

Data analysis. The content analysis method is used to discuss and categorize the internal content of the website; the thematic analysis is used to categorize and examine the data to identify common themes and patterns of the website. The three most popular educational websites among students, teachers, and educators were also analyzed.

Results. In their study, Toufaily, Zalan, and Lee (2018) experimented to determine the value dimensions of educational websites and their conceptualization. They identified the following characteristics:

1. Functional: benefits derived from functional, utilitarian, or physical activities (e.g., price-quality trade-off, convenience, flexibility, career prospects).

2. Social: formation of their status/image, distribution of their products, and formation of interest groups.

3. Belonging: results from students' identification and sense of belonging with their classmates, teachers, and the university; having friends in their classes; and group and social activities that add value to their learning.

4. Personal: Benefits derived from an increase in personal values, self-actualization, and a sense of accomplishment.

5. Emotional: benefits that result from learning-related feelings or affective states (e.g., positive feelings about learning).

6. Epistemic: Benefits that result from the ability of a product/service to generate interest, offer something new, and/or satisfy a desire for knowledge.

7. Conditional: benefit that results from a particular situation or set of situations faced by a person who has made a decision.

That is, according to the proposed value measures, we can evaluate any educational websites to determine their importance to the educational process and product evaluation.

Due to the great importance of Bloom's taxonomy in the updated curriculum in Kazakhstan, we decided to evaluate the material of the websites according to their elements, i.e., remembering, understanding, applying, analyzing, evaluating, and designing principles. As we know, Bloom's taxonomy is a version of the classification of pedagogical goals, which includes three areas of educational goals: cognitive, affective, and psychomotor / "know", "feel", and "do". The purpose of Bloom's Taxonomy is to encourage educators to focus on all three domains (Baktybaev, 2017).

Currently, teachers in Kazakhstan actively use educational sites in the educational process. During the survey, we identified the most popular websites: Bilimland, TopIQ, iMektep, Twig-Bilim, OpenU, Tilalemi, Damoo, and others. In this article, we tried to analyze the 3 most popular websites through a survey of 5 students, 5 lecturers/teachers, and 5 methodologists. All survey participants are active users of various educational platforms.

The most popular educational sites were identified for analysis:

1) Bilimland is an innovative company creating a new electronic learning market (e-learning) that develops, isolates, and distributes educational content and related technologies and services for Kazakhstan (https://bilimland.kz)

2) TopIQ is a platform for digital textbooks (https://topiq.kz)

3) Daryn. Online is an exam preparation website (https://daryn.online/).

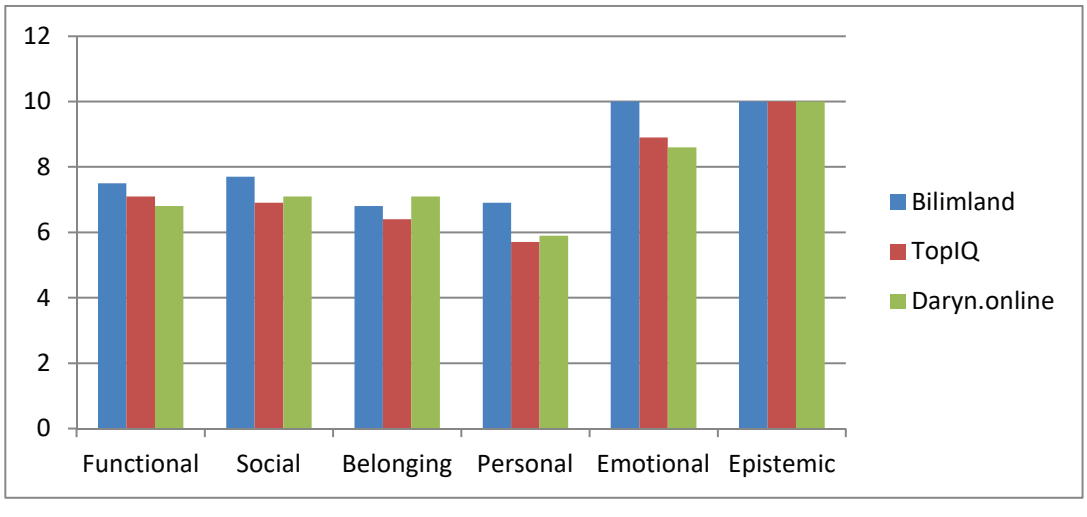

Figure 1- Evaluating educational websites on their value dimensions.

Several comments were made about specific sites. For example, during a review of the Bilimland: *"There is no way to view the lesson for free the first time. Unexpectedly, this option doesn't fit us and we don't have the option to do demo versions of lessons. You pay for a lesson without realizing its value", "There are so many, I'm lost and don't know where to start", and "I don't understand how they select the material and how to submit/announce a lesson or article"*. But most participants liked the website for its functionality: the price is affordable, the website is in two soothing colours (white and green), technical support is easy to reach; an ideal platform for communication, performance assessment, and/or analysis; pleasant to use; lots of audio and video material; assignments are illustrated.

"TopIQ offers electronic versions of textbooks from publishers such as "Almatykitap", "Arman-PV", and "Express Publishing", but it would be even better if these publishers provided access to other books, such as the works of modern writers and poets of Kazakhstan", "The number of books is small", "Interestingly, the school administration can buy access to facilitate the work of teachers", but overall, the platform has potential if filled with popular books, textbooks. Interestingly, the backlight of the screen can be changed from black to white at the reader's

request. Looking at the diagram, we can also see that the site itself is not designed for social communication between teachers; there is no dialogue with authors. The material on the website is from a pre-made textbook, which can of course be used via an interactive whiteboard, but it is not fully functional. Some tasks are not loaded, or the set of exercises is not meant for individual work because it does not summarize.

On the website Daryn. online reviewers said: *"Registration is difficult and takes a lot of time", "each course is separate, cumbersome and expensive", "some cells cannot be opened, for example, the tutor column", "you can get a certificate to improve your skills", "you can add your articles without any problems, but on the other hand, how good are they all", "expensive for a student/learner"*, but at the same time it is stated that the material on this website is close to real tests. Unfortunately, only the free courses were evaluated, as each participant had to purchase individual access to certain materials.

Methodologists evaluated the material on the educational sites according to Bloom's taxonomy. However, because the sites contain only instructional elements or rather tasks of various forms, the methodologists determined that these tasks encourage the student to "know", "feel", and "do".

In general, it was concluded that all materials correspond to the initial phase of teaching, while the completion of the lesson/module is done through familiarization with the new topic and testing. Particularly highlighted was the Bilimland website, which contains a wealth of different materials for different levels with interesting interactive tasks, to which the teacher can subscribe himself and which is optional for the students in the classroom. Also, TopIQ, where the whole school can work for free. And Daryn. Online requires a separate subscription for everyone. TopIQ's assignments and text work cannot be assessed in detail because it is digitized material from textbooks. In this case, the methodologists point out that it is necessary to evaluate the textbooks recognized and recommended by the Ministry of Education of the Republic of Kazakhstan. Daryn. online is a collection of exam preparation materials for different types of exams. Various options suitable for the assessment of teaching, monitoring, and student evaluation online are a breakthrough in education.

Discussion. Thus, modern educational websites offer many opportunities for both teachers and students. Despite the abundance of educational resources, it should also be noted that there are often inconsistencies between the possibilities of information technologies in the educational system and their actual use in professional activities. The problem is that a part of school teachers, university lecturers, and students do not have the necessary information competencies for effective use of computer technologies, including educational resources. The situation is also complicated by the rapid innovation of information technologies – artificial intelligence, virtual reality, geographic information systems, etc.–, which are producing new, more efficient, and more complex technologies. The difficulties in mastering computer technologies in education arise not only from the lack of a methodological basis for their use in this field but also from the lack of a clear understanding of how to train the teacher's information literacy, which in practice forces the teacher to focus only on his or her personal experience and ability to empirically search for ways to effectively use information technologies. For this reason, various seminars and master classes are currently being organized to develop these websites.

From the above analysis of educational websites, the following positive aspects of their use in teaching can be highlighted:

1) Interactivity of teaching;

2) Use of multimedia resources;

3) Use of gamification technologies in teaching;

4) Easy to create group and individual tasks;

5) Facilitates knowledge and homework review;

6) Can focus students' attention on instruction;

7) Allows students to learn independently and at their own pace;

8) Useful for self-development of the teacher's professional potential.

Conclusion. Today's students want relevant, mobile, and personalized content that they can access at their own pace. This need is being met

through educational sites and platforms where students can learn based on their needs and convenience.

In addition, these sites allow teachers to improve their skills and familiarize students with school material. In this way, the teacher can use electronic textbooks, assignments, and tests as an interactive, instructional tool that attracts students' attention.

The results of this research will be further used in the creation of the LiteRon educational website.

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PEDAGOGICAL STRATEGIES TO MITIGATE SUICIDAL BEHAVIOR AMONG CHILDREN WITHIN THE CONTEXT OF FAMILY EDUCATION

Abstract

At the moment, many approaches try to explain the true causes of suicide in children and adolescents. Particular attention is paid to the consideration of the family as a factor in the consolidation of auto-aggressive patterns in children and adolescents. The deformation of parent-child relationships and the disorganization of the family as a whole can be considered one of the main socio-psychological causes of suicide. Often the reason for the suicidal risk of a teenager can be an early loss of parents or a violation of constructive relationships with them, an incomplete family, or economic problems in the family.

The article aims to describe the factors of suicidal risk, in particular, significant experiences associated with close relationships in the family throughout the life of the individual.

To gauge the propensity for suicidal ideation, a suicidal risk questionnaire was employed Additionally, the Eysenck test, encompassing 70 inquiries, was harnessed to ascertain the proclivity towards extraversion or introversion.

The results show that conflicting parenting style is closely associated with self-destructive personality behavior.

Keywords: adolescence; suicidal risk; family disorganization; conflict situations; emotional and behavioral disorders; family psychological support.

Introduction. Contemporary society is witnessing a surge in technological advancements and industrial innovations, yet this progress is accompanied by intricate challenges in understanding the dynamics between modern parents and their offspring. This is manifested in the deficiency of trust and emotional intimacy between parents and children, heightened and rigid parental demands and expectations, as well as the pervasive prevalence of parental indifference and disregard towards adolescents' lives.

One of the prominent socio-psychological factors contributing to suicidal risk in adolescents is familial disorganization. Family disarray encompasses circumstances such as the absence of a paternal figure during early childhood, a deficiency in maternal nurturing, the absence or, conversely, the overwhelming exercise of parental authority, and the imposition of corporeal punishment (Ibrahim et al., 2022). Frequently, issues of domestic violence arise, leading to severe psychological trauma in children, a phenomenon elucidated by Sigmund Freud. Freud (1989) & Guillen-Burgos et al., (2023) highlighted that childhood trauma represents a prototypical psycho-traumatic event that triggers diverse alterations in a child's psyche, which can persist into adulthood. This encompasses negative emotional responses, various mental states, and inner conflicts, ultimately resulting in a fundamental reconfiguration of the individual's internal state (Merkulova et al., 2020; Yousef et al., 2022; Soliman et al., 2020).

Under such circumstances, the child remains in a state of trauma, carrying it throughout their life. The following occurrences can exert influence on adolescent suicidal behavior: parental divorce, parental remarriage, parental conflicts, family members' illnesses or deaths,

as well as instances of physical or sexual abuse. Specific psychological challenges in teenagers can exacerbate family disputes, leaving parents ill-equipped to manage their children's behaviors.

The practical significance of this study lies in its potential applications for averting inclinations towards suicidality in adolescents within the framework of family-based education, as well as within the educational milieu of schools, realized through:

1. Integration of corrective and developmental programs into the educational schema, fostering psychological and pedagogical conditions conducive to adolescents' holistic growth;

2. Elaboration and integration of an all-encompassing program within the educational curriculum, comprising informational, educational, communicative, and activity-oriented components;

3. Identification of students' susceptibility to depression;

4. Creation and execution of a corrective developmental program titled "Methodological Guidelines for Diagnosing and Preventing Suicidal Behavior in Students," targeting adolescents deemed to be within the "at-risk" category.

This program endeavors to enhance conflict resolution capabilities, imbue analytical aptitude regarding incoming information, ascertain value hierarchies, and integrate these considerations into decision-making amidst conflicts as Çekiç (2022) studied conflict resolution and its long-term psychological effects on children. The recommendations emphasize the necessity for communication processes to be rooted in positive relationships, fostering adolescents' recognition of their capacity to contribute to their betterment, familial harmony, and broader societal welfare. The program also strives to nurture the inclination for self-actualization and the aspiration to foster improved familial ties.

Consequently, the program and methodological materials devised and executed by our team can be harnessed by educational administrators, instructors within the general education system, as well as social pedagogues and psychologists associated with educational institutions.

Main part. In the year 2019, suicide emerged as the fourth principal cause of mortality among individuals aged 15 to 19 globally, following vehicular accidents, tuberculosis, and interpersonal violence. The concept of suicide is effectively depicted through Van Heringen's suicide pyramid, wherein, akin to adults, the progression of suicidal symptoms in young individuals spans a spectrum from initial suicidal thoughts at the pyramid's base to actual suicidal behavior and eventual suicide at its apex. Suicidal ideation marks the foundational phase of this continuum; however, not all individuals reporting such ideation proceed to develop suicidal behavior. Houghton and colleagues have indicated that only a minority of adolescents with suicidal tendencies seek assistance services, leading to the issue largely remaining concealed from society, akin to an iceberg's submerged portion. Additionally, even within emergency departments, there is a tendency to under-document suicidal ideation, resulting in the incomplete recognition of suicidal symptoms and subsequent lack of engagement with psychiatric services (Lawrence et al., 2021). The prevalence of psychological symptoms and suicidal behavior among young individuals has notably escalated over the preceding decade, thereby assuming significance as a critical public health concern (McRae et al., 2022). During the initial months of the COVID-19 pandemic, there was a reported upswing in the occurrence of specific mental health conditions (depressive and anxiety symptoms, eating disorders, behavioral issues) compared to pre-pandemic levels on a global scale. While these conditions showed close associations with suicidal attempts, actual suicide rates exhibited limited changes. However, a more recent study has indicated potential variations in this phenomenon across different countries. Moreover, the prolonged pandemic has prompted various scholars to underscore the necessity of reevaluating youth suicide dynamics post the initial COVID-19 wave. (Bersia, 2022)

The equilibrium between spiritual and material values has shifted towards a focus on material security. Nonetheless, the bedrock of family life persists in the form of interpersonal relationships within families, external interactions, and integration with immediate society. Of special note is the interaction between family members in activities such as information exchange,

recreation, and collaborative endeavors, all of which must consider the unique attributes of each family member (Khamitova & Atemkulova, 2021; Nurmukhambetova et al., 2021; Kuatova, 2020). Any action, occurrence, or characteristic displayed by an individual is intricately linked to their development within a particular society, and frequently, the family serves as a microcosm embodying the broader social developmental context.

In the study by Shereshkova. & Prokofieva (2022), the construction of adolescents' conscious attitudes towards their parents was examined. Components characterizing adolescents' attitudes towards their parents encompass cognitive aspects (perceptions of parents and evaluations of their educational strategies), emotional dimensions (closeness vs. distance, sympathy vs. antipathy, respect vs. disdain), and behavioral elements (autonomy, separation). Broadly, a substantial proportion of adolescents demonstrated low levels of the behavioral component (42%), cognitive component (30%), and emotional component (28%). This research underscores the substantial potential for nurturing the constituent elements of adolescents' conscious attitudes toward their parents. Adolescents encountered several challenges including a dearth of self-awareness, apprehension surrounding self-disclosure, social insecurity, inadequate communication skills, and limited interest in engaging in such activities.

In light of the above analysis, it becomes evident that adolescents' perception of insufficient parental care, difficulties in confiding in parents regarding problems, and reliance on friends' opinions for significant decisions are closely linked to compromised behavioral and emotional well-being. Interventions targeted at enhancing parent-child relationships can catalyze averting health risk behaviors among young individuals.

While exploring the parent-child dynamic, it is crucial to recognize that adolescence represents a particularly sensitive phase. Growing children are especially responsive to macro and micro-social influences impacting family dynamics and shifting everyday life norms. It is established that family conflicts are a prominent trigger for suicidal tendencies in adolescents (Ackerman & Horowitz 2022).

The absence of mutual comprehension within families and the dearth of psychological support from parents contribute to the escalation of suicidal manifestations, which have become increasingly prevalent among children in the past decade (Ong 2021). Often, parents lack insight into the reasons behind their children's inappropriate behavior, leading to difficulties in selecting appropriate parenting styles and strategies.

According to the findings by Sabol et al., (2021), the parent-child relationship is characterized by interdependence, synergy, and dynamic interplay. Progress made in one generation exerts an impact on advancements in subsequent generations. While extensively applied to comprehend parental dynamics and parent-child relationships, this theory is substantiated by scientific literature, indicating a correlation between parental and child education. This underscores the significance of evaluating both generations simultaneously to optimize the development of human potential. The investigation conducted by Karabanova (2019) reveals the existence of a "universal" parenting style. This style encompasses facets of emotional rapport, communication, interaction, directives, and restrictions, and the severity of each parameter of child-parent interactions adjusting in response to socio-cultural nuances. The resultant equilibrium of autonomy and interdependence harmonizes with cultural educational values. The model of an ideal upbringing and parent-child relationship manifests as a multi-component framework integrating emotional rapport, communication, control, and directives. This configuration fosters a zone of proximal development, nurturing the child's autonomy while maintaining emotional intimacy and mutual reliance.

The deleterious form of family upbringing that contributes to aggressive adolescent behavior is typified by tactlessness, irritability, and inconsistency. In such families, parents openly express anger, rage, and discontent in the presence of their children. This family dynamic is prevalent when children exhibit emotional inadequacy, indecisiveness, conflicts, and relationship difficulties (Arinin, 2019).

Various studies highlight emotional intelligence as a repertoire of competencies that

effectively manage emotional processes. Self-assessment of emotional intelligence largely reflects an individual's aspiration rather than intrinsic abilities, gaining interest primarily due to individual belief. Emotional states wield substantial influence over attitudes, cognition, and behavior. Positive emotions generally hold an adaptive function, augmenting resources for creativity, engagement, health, and collaborative efforts. According to the SFT (Situated Function Theory), negative emotions also serve functional roles. The limitation of most organizational endeavors stems from the decontextualized nature of indicators: the emotional experiences of employees are contingent upon particular circumstances and often specific individuals (Hillary, 2023).

A team of researchers including Zhang et al., (2021), discerned a positive association between parental control and emotional intelligence. They posit three emotional constructs within the parenting context, deemed pivotal constituents of emotional intelligence: parents' awareness of children's emotions pertains to the capacity to accurately perceive and discern emotional expressions, contextual cues, and behavioral signals of emotions. Children's grasp of emotions relates to their comprehension of their own and others' emotional states. Mitigating children's agitation and adverse emotional impacts is a principal parental responsibility. Zhang et al., (2021) also ascertained the salutary effects of positive social support on mitigating symptoms of anxiety and depression.

Purpose of study. In light of these findings, measures to bolster social support warrant consideration. Diverse forms of support (instrumental assistance, emotional care, provision of information) can emanate from various sources such as supervisors, colleagues, family members, and friends. It is recommended to establish a comprehensive informational social network, as distinct relationships for varying support types can aid adolescents in coping with diverse challenges. Additionally, active participation in numerous educational and recreational activities is advised. Crucially, adolescents are encouraged to proactively seek assistance when required. The article describes the factors of suicidal risk, in particular, significant experiences associated with close relationships in the family throughout the life of the individual.

Materials and methods. The present investigation was structured into a triadic sequence of phases. Initially, the scope, object, subject, aims, and objectives of the study were meticulously defined. Subsequently, the second phase encompassed a comprehensive analytical review of pertinent research, culminating in the judicious selection of methodologies germane to the research domain. Lastly, a robust empirical investigation was undertaken, involving stages encompassing statistical manipulation, result analysis, discourse of findings, formulation of conclusions, and the articulation of recommendations.

Participants. The participants of the sociological survey comprised respondents aged between 15 and 19 years. A parent survey was also conducted involving 48 participants.

Data collection tool. Within the ambit of the empirical study, an array of meticulously selected methods was employed. To gauge the propensity for suicidal ideation, a modified version of T.N. Razuvaeva's suicidal risk questionnaire was employed. To identify psychological deviations, the Szondi test, comprising several phases, was administered. The assessment of depressive tendencies was facilitated by employing two Beck depression scales: the former focusing on proclivity to depression and general symptoms, and the latter concentrating on the appraisal of anxiety and its related disorders. The Zang (Tsung) scale was deployed to ascertain levels of self-esteem and depression. Furthermore, subjective color perception was gauged using the Luscher test, involving the preference-based selection of colors. The evaluation of respondents' temperamental attributes was accomplished through the Strelau temperament diagnostic test. Additionally, the Eysenck test, encompassing 70 inquiries, was harnessed to ascertain the proclivity towards extraversion or introversion. Rapid diagnosis of neurosis, employing the Heck-Hess methodology, was instrumental in revealing degrees of neurotic probability. Hall's emotional intelligence test was exploited to glean insights into mood dynamics and emotional orientations toward others.

To elicit insights into high school students' tendencies towards self-harm, a parent survey was conducted involving 48 participants. The survey comprised the following inquiries:

Do your offspring participate in regular domestic tasks?

Do your offspring exhibit accountability towards their duties?

Is there parental oversight of your offspring's academic responsibilities?

With whom does your child share the most intimate interactions?

Is your child engaged in family discussions regarding household matters?

Is your child's viewpoint taken into consideration in significant decision-making processes?

Are familial conflicts a recurrent occurrence for your child?

Is your child prone to frequent mood fluctuations?

Is your child often afflicted by feelings of despondency and melancholy?

Is your child susceptible to fits of aggression?

Does your child grapple with any phobias?

Are issues concerning interpersonal relations and communication problematic for your child?

Does your child tend to choose solitude over social gatherings?

Does your child engage in gaming activities?

Does your child prefer virtual communication via social networks?

Data analysis. The statistical manipulation of the study's outcomes was effectuated through the utilization of online testing and subsequent digital computations.

Results. Examination of the survey data unveiled the following insights:

A significant proportion of parent-surveyed high school students do not participate in regular household chores (71%).

Merely 21% of students demonstrate responsibility towards their domestic duties.

An overwhelming majority of parents (83%) do not oversee their children's academic obligations.

Notably, 35% of respondents reported that their children share their most intimate interactions with their mothers.

An overwhelming 90% of parents do not engage their children in discussions about family issues.

A substantial 71% of parents consider their child's perspective in matters of substantial decision-making.

Nearly half (45%) of the surveyed children experience familial conflicts.

Approximately 47% of children exhibit frequent mood oscillations.

Instances of melancholic and depressive emotions appear to be circumstantial.

Episodes of aggression are observed in 23% of children.

A mere 10% of children exhibit manifestations of phobias.

The majority (95%) of children do not encounter difficulties in their interpersonal relations and communication.

About one-third (31%) of children prefer solitude over social gatherings.

Gaming interests are prevalent, with 67% of children being gamers.

A substantial 72% of children exhibit a preference for virtual communication through social networks.

Henceforth, the parental survey engendered the following deductions: an elevated degree of "gaming," virtual communication, interpersonal conflicts, and displays of aggressive conduct, alongside manifestations of despondency and depression, are, in our assessment, intertwined with the repercussions of the pandemic and the swift advancement of digitalization in contemporary society.

Discussion. In cases where a heightened propensity for suicidal inclinations is ascertained, it is advisable to administer psychological counseling or psychotherapeutic intervention. Ensuring the comprehension that high school students are not alone and that their voices are heard emerges as crucial.

Scrutinizing the study's outcomes, the examination of the familial influence on suicidal tendencies has been unveiled. The findings underscore the family's role as either a counterforce against the actualization of suicidal proclivities or as a potential source of factors contributing to suicidal conflicts.

In the context of adolescent suicide, researchers Mohd Fadhli et al., (2022) contend that the inclinations toward suicidal behavior in adolescents can be impacted by both cultural

determinants and sociocultural alterations in the youth milieu, notably stemming from the ubiquity of the internet and communication platforms. Additional risk factors encompass maltreatment, inhabiting an unstable familial setting, depression, and a sense of deficient social support from both family and peers.

The scholarly contribution "features of family-teacher interaction in the formations of students' socioeconomic value orientations" corroborates the pragmatic significance of corrective developmental programs and substantiates the rationale behind their integration into educational praxis to optimize family-teacher interactions (Mnaidarova et al., 2017).

A paramount avenue for elevating the motivational realm centers on devising strategies to circumvent prospective setbacks, as these bear implications on the cultivation of diminished self-esteem and frequently foment situational anxiety, which becomes evident in the avoidance of responsibilities and participation in extracurricular pursuits.

Conclusion. In the culmination of the aforementioned, it becomes evident that the educational impact wielded by parents bears substantial significance in shaping behavioral inclinations and fostering the development of individual-personal attributes in offspring. These attributes encompass personality activity, adaptability, and communicative proficiencies. The family persists as an enduring cornerstone in individual development, serving as the quintessential nucleus within the broader societal framework. Thus, an imperative arises for the formulation and execution of a program tailored to enhance the emotional intelligence of parents, with a pronounced favorable influence on the holistic growth of their progeny.

Within the framework of digitalization, wherein the preponderance of families grapple with economic challenges, there has been an exacerbation of a tendency for many parents to disengage from addressing the developmental and educational facets concerning adolescents. In such family constellations, the absence of a bedrock of trust between family members and adolescents ensues, thereby inherently impeding harmonious and comprehensive childhood development.

Principal dimensions of family-based education encompass the orchestration of collective, socially significant events for parents and students, as well as the provision of parental support in nurturing their children. Additionally, the utilization of personalized and collective mechanisms of collaboration with parents, their active engagement in communal undertakings, and the facilitation of auxiliary initiatives to organize the activities of parent-oriented communal entities (such as boards of trustees and parent committees) hold pivotal roles.

From our vantage point, the discerned psychological and pedagogical prerequisites afford the prospect of enhancing the educational milieu and establishing an ecosystem conducive to individual advancement, social interconnectivity, preservation of personal identity, and ethical fulfilment resulting from accomplishments.

In sum, the manifestation of suicides and propensities toward self-harm can be attributed to disruptions within the life system and the fabric of personal relationships, particularly within the familial educational context. These disruptions are characterized by the marginalization of individuals from societal life, a deficiency in accrued experiential insights towards structuring one's engagements, and the inability to ascribe personal roles within the social continuum. Put succinctly, this translates to sentiments of futility, a loss of existential purpose, and a dearth of confidence in the human experience.

The influence of the family upon suicidal phenomena is multifaceted: in specific instances, it serves as a crucible for suicidal conflicts, while in others, it functions as a counteractive force against the realization of suicidal propensities incubated within adolescents. A constructive rapport with an adolescent could equip them with psychological defense mechanisms and coping strategies, fostering a more measured response to emerging stressors and mitigating negative emotional strains. Conversely, negligence, a lack of earnest attention towards a child's experiences and tribulations, may evolve into factors that escalate the vulnerability to suicidal tendencies during adolescence.

Recommendations. Drawing from the study's findings, we have formulated recommendations for the pre-emptive mitigation of suicidal tendencies:

1) Timely identification of students exhibiting depressive comportment via diagnostic endeavours.

2) Provision of psychological and pedagogical support for students manifesting behavioral aberrations.

3) Consistent implementation of psychological, preventive, and educative initiatives targeting the parents of students.

4) Cultivation of amicable relationships amongst participants within the educational milieu, encompassing all structural components of the educational establishment, school administration, students, and their guardians.

5) Formulation and implementation of a program encompassing remedial and developmental sessions designed to facilitate collaborative exploration of constructive approaches, alternative solutions, and positively impactful experiences for high school students.

6) The integration of public representatives (social and psychological services, law enforcement agencies, etc.) to execute psychological and preventative efforts.

The outcomes stemming from the diagnostic phase of the study facilitated the identification of anxiety in adolescents and facilitated the evaluation of the intensity of diverse phobias, depressive symptoms, and other anxiety-related indications, thereby affirming the validity of our methodological selection in empirical research.

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ASSESSMENT BY THE PEDAGOGICAL COMMUNITY OF INCLUSIVE COMPETENCIES OF SPECIAL TEACHERS

Abstract

The article is devoted to the issues of the readiness of special teachers to work in the conditions of inclusive education. The current state and problems of the formation of inclusively oriented professional competencies of special teachers are analyzed. The importance of inclusive competencies for special teachers for successful work in the general education process is proved, and the necessity of systematic and comprehensive pedagogical activities for the formation of these competencies is substantiated.

The article presents brief results of a specially organized interview of the administration and teachers of secondary schools, the purpose of which was to identify their opinions on the level of readiness and formation of inclusively oriented professional competencies of special teachers.

It was determined that teachers and the administration of general education organizations attributed to the professional qualities of a special teacher who effectively implements his activities in inclusive education: competence, pedagogical ethics, practical skills, understanding and acceptance of a child with disabilities, flexibility and adaptability, the ability to adapt by the characteristics of the child or the educational situation, sociability and willingness to cooperate, emotional stability and stress resistance, skills of working in an interdisciplinary team, responsibility, diligence, availability of certain organizational skills, etc.

Keywords: special teacher, readiness, university training, inclusive education, limited opportunities, professional competencies.

Introduction. Current trends in education on the issues of inclusion of children with disabilities in the general educational process are of particular focus in many countries of the world (Khalil et al., 2023). The transition to inclusive education is increasingly associated with actively developing trends in the humanization of education and the transition of special education from a medical model to a social one. Inclusion in education is actively spreading in the Republic of Kazakhstan by the world's leading trends. In proportion to this, the number of special teachers required for general education organizations to work with children with disabilities is also growing. Despite the activities carried out in the country to organize inclusive-oriented training of special teachers, so far, many issues remain insufficiently developed and theoretically substantiated, which in itself requires serious research, because the number of children with disabilities studying in general education institutions is steadily growing, and the severity and variations of manifestations of various disorders are constantly expanding. Therefore, at all levels of the education system, the question of preparing future special teachers for work in the conditions of inclusive education is seriously raised and the level of compliance of their professional competencies with the requirements of general education organizations is actively discussed (Orndorf et al., 2022). At the same time, the study of the requirements of inclusive organizations for the professional competencies of a special teacher, which presupposes the presence of established knowledge of diagnostic, rehabilitation, consulting, and correctional and developmental work, becomes relevant (Kenny et al., 2023). A wide variety of variants of developmental disorders and a variety of types of special and inclusive organizations place high demands on the professional competence of a special teacher. Inclusive-oriented training of special teachers, providing correctional and pedagogical assistance and accompanying children with disabilities, involves the development of additional professional competencies for the formation of a positive public opinion on inclusive education and establishing contacts with teachers of general education, other specialists (psychologists, social teachers, teaching assistants, etc.), parents, various social groups and organizations.

At the same time, when describing the process of training special educators as "defectologists" at present, the words of American Scientists Dryden & Vos (2003) are most suitable, which say: "The world is changing so rapidly, and educational systems are so indirect and inert that they continue to serve the past, trapped in time and exhausted" The lack of scientific analysis and theoretical justification of inclusive-oriented professional competencies by the needs of general education organizations may be a possible reason for a long and painful restructuring of the process of training special teachers in the country. This situation is facilitated by the lack of a unified graduate model in special pedagogy and a clear list of professional competencies for a university graduate, as well as the insufficient scientifically based Kazakhstan educational and methodological support of the educational process for training special teachers.

Main part. The study of the scientific literature, the analysis of the most important characteristics of the professional competence of special teachers, the features of pedagogical activity made it possible to identify the professional competence of a special teacher as an integrative personal trait based on a set of professional and pedagogical knowledge, practical qualifications and skills, experience of activity, testifying to the readiness and ability of a specialist to successfully carry out professional and pedagogical Activity (Movkebayeva & Dyusenbayeva, 2021).

In general, professional and pedagogical competence includes a whole range of competencies actualized in the practice of professional and pedagogical activity and has a constituent structure related to a creative understanding of the activity. The set of competencies of a specialist is "distinguished" on the one hand by the main customers of the vocational education system - employers, the state, and society, on the other by the student himself, as a future specialist, and by the education system. Employers, society, and the state are external components of the education system, but they ultimately judge the quality of specialist training, primarily the practical component.

For the employer, a high level of professional competence of a specialist is important, which involves the ability to effectively perform professional functions, and the ability to solve certain classes of tasks and problems in Practice (Raven, 2002).

Analysing the work of foreign scientists on the problems of requirements for a special teacher working in the conditions of inclusive education, one can note the opinion of some researchers who point out the insufficient personal training in the conditions of inclusion. Thus, foreign scientists (Forlin & Chambers, 2011) noted that at present the issues of increasing the effectiveness of educational units of inclusive education are being actively studied, as well as the issues of identifying the necessary components for the successful preparation of special teachers for inclusive education are being discussed.

It should be noted that foreign authors indicate the existence of complex conceptual and design problems that researchers face when developing quality indicators of the readiness of special teachers to work in inclusive conditions. So, American scientists argue that in determining the requirements for the process of training special educators, for their training as a whole, it is necessary to determine what it means to be a qualified and novice teacher of special and inclusive education. This is not an easy task if we take into account the diversity of developmental disorders in different children and other features of their psychophysical development. As indicators of inclusive-oriented readiness, it is proved: firstly, a certain level of professional knowledge is necessary for the training of students with completely different educational needs, secondly, the presence of competencies to provide advice and assistance to all subjects of the inclusive educational environment in various fields of development, upbringing, and training of children with disorders differentiated by severity and type, and thirdly, the possibility of interaction in various forms and types with other, homotypic children, administration and parents.

Considering the problem of readiness of special teachers for work in the context of inclusive education, it should be noted the problem of inclusiveness is required in the context of inclusive education and the presence of different approaches of different scientists to the study of the emerging competencies. Thus, scientists Forlin and Chambers (2011) consider in their research a positive attitude towards inclusion in education as one of the most important competencies and a willingness to closely interact and interact with people with disabilities. According to these scientists and also in research by Shatayeva et al., (2022) and Fernández-Batanero et al., (2022), the preparation of special teachers for the adoption of an inclusive approach in education involves the identification of the most effective technologies and methods for teaching teachers, taking into account the cultural, social, economic and political situation in a particular country, as well as the nature of the existing education system.

Foreign researchers Fasting & Breilid, (2022) address professional collaboration issues to improve inclusive education. In their research, inclusive education is coordinated, and implemented in kindergartens and schools, both at the organizational level and for children and adolescents. Consequently, the agreed working value of inclusive education establishes that it must cover different organizational levels, creating prerequisites for both educational policies and classroom practices. The authors (Blanton et al., 1997) presented their understanding of the characteristics and competencies necessary for special educators to effectively teach a diverse group of students in general education (Kim, 2011).

Interpersonal relationships and self-determination after graduating from high school for children with disabilities are the main factors (Malinovskiy et al., 2023; Argyropoulos & Halder 2019). The attitude of parents towards inclusive education and their perception of inclusive learning methods and resources are studied in their works (Paseka & Schwab, 2020; Florian & Camedda, 2020).

It is established that a positive attitude of teachers is necessary for success when placing children with disabilities in normal classes (Saloviita, 2018).

The problems of developing the professional competence of special teachers for work in special educational organizations, the idea of the connection of the totality of influences and

conditions of the educational environment with the development of the student's personality, his abilities for self-learning and self-development are considered in the works of near foreign scientists (Sergeev, 2004; Kovrigina, 2009; Gaidukevich, 2016).

The analysis of various approaches proposed in foreign theory allows us to consider the inclusive-oriented training of special teachers in the form of two interrelated aspects: the first, a special teacher as a practitioner ready for reflection, creatively selects the appropriate methods and techniques for each child, his educational opportunities personalizes, adapts the learning process as much as possible, and the second, the idea of a special teacher as the main acting person who organizes changes in the educational environment as a whole and society as a whole. This approach corresponds to the domestic views on the inclusive-oriented training of special teachers that a special teacher should "Contribute to the implementation of the principle of inclusiveness in education, advise teachers, parents of students or persons replacing them, on the use of special methods and methods of teaching and upbringing of assistance to children, provide special psychological and pedagogical assistance to children with special educational needs and work on the formation of a tolerant attitude of society to persons with special educational needs" (Typical Qualification characteristics, 2020).

Purpose of study. The solution to the problem of the formation of special educational needs skills has not yet found its final solution in both foreign and domestic theory and practice. Based on the research of foreign authors, the main competence of the reflective practice of a special teacher can be formulated as a "problem-solving activity", special attention is paid to the practice of reflection skills, as well as metacognitive and research skills as tools for personal and professional development. In this regard, reflexive practice in the activities of a special teacher should note the need to form the ability not only to reflect on their own experience but also to reflect on the difficulties and achievements of other colleagues. The article is devoted to the issues of the readiness of special teachers to work in the conditions of inclusive education.

Materials and methods. As part of the study, the following methods were used with us: analysis of foreign and domestic psychological and pedagogical literature on the topic of the study; generalization of foreign and domestic experience in organizing inclusive-oriented training of special teachers, interviewing administration and teachers of inclusive schools, mathematical and statistical methods: quantitative and qualitative processing of experimental data.

Data collection tools. Within the framework of the research project, a sociological study was conducted by a group of researchers at the Abai Kazakh National Pedagogical University to determine the requirements of inclusive organizations for the training of special teachers in preschool and school organizations. A qualitative method was chosen as the accumulation of information necessary for the study by conducting an interview.

Data collection process. Before starting the interview, a sociological toolkit (Hyde interview) was developed with the research team, consisting of key questions for revealing the research topic. To implement this goal, it is planned to organize interviews of the administration and teachers in 30 inclusive organizations in different regions of the Republic of Kazakhstan.

Data analysis. All the interviews conducted went through the transcription stage, and the finished texts were processed and analyzed in the QDA Miner 6 software.

Participants. The interview was attended by 36 managers, including 25 respondents – school principals and deputy principals, the remaining 11 – heads of kindergartens. In addition to the administration, 116 teachers of General Education Pre-School (52) and school (64) organizations took part in the interview. Their share in terms of location by region where the interview is held is shown in Figure 1.

The purpose of the interview was to identify the opinions of the administration and teachers of general education organizations on the level of training and formation of inclusive-oriented professional competencies of special teachers. Before the interview, it was found that children with disabilities study in all schools and kindergartens selected for the study, moreover, the priority form of integration of these children

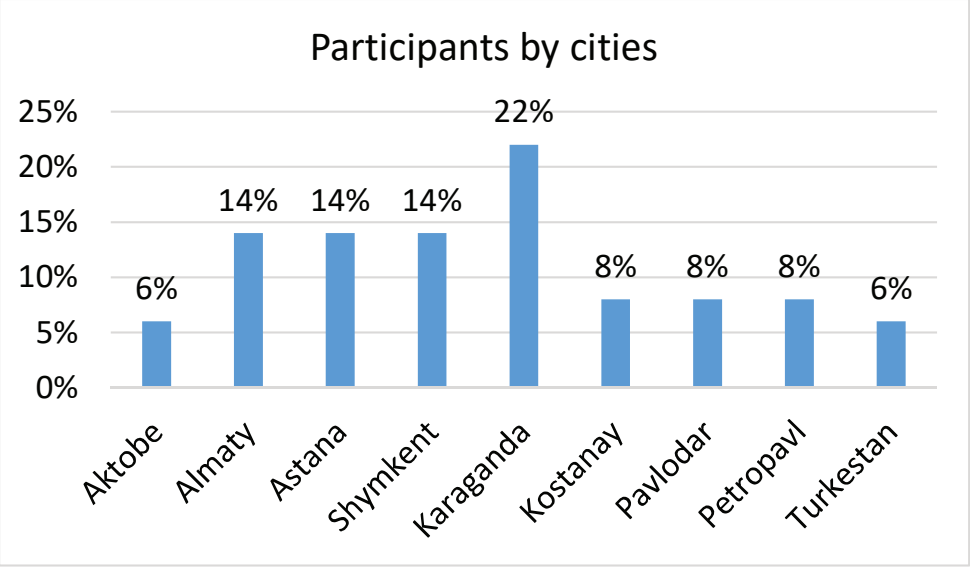

Figure 1. Share of Interview participants

was a complete form of inclusion in the general educational process, that is, joint (in one class) training, as well as home education of children with disabilities.

A general analysis of the responses of managers and teachers of kindergartens and schools shows the following observations and aspects of the integration of children with disabilities:

1. Specific needs: The answers confirm that special attention is paid to children with disabilities in preschool and school organizations. Various types of developmental disorders such as speech, vision, intelligence, mental development delays, and autism are found in all kindergartens and schools.

2. Individual curricula and plans: All preschool and school organizations have their groups or classes for children with disabilities, as well as offer special programs and curricula that take into account the specific needs of children.

3. Inclusive Education: answers support the ideas of inclusive education, in which children with disabilities are integrated into general education classes with special conditions and adapted teaching methods. It allows children with disabilities to learn with ordinary students and develop their social skills.

4. Home-schooling: Some children with disabilities receive home-schooling, but this is only considered as a temporary measure or if there is no way to attend a school organization due to surgery or injury.

5. Support and socialization: Heads of preschool and school organizations express their desire for successful socialization of children with disabilities. According to the administration and teachers, it is important to support the sections of circles and additional education, and their equal participation in classes and extracurricular activities to ensure the full development of these children.

So, for example, A. the director of the school said during an interview: “For several years in our school, all types of integration with children with disabilities have been implemented, which are: joint training, special training, home-schooling through participation in joint activities at school.” In his response, the head of the kindergarten E. said: “We have 2 separate (special) groups for children with mental retardation. In other groups, joint education is carried out.

In general, it can be noted that in general education kindergartens and schools, various forms of inclusion of children with disabilities in the general education process are implemented. These forms of integration include inclusive classes, special classes, and home-schooling. different approaches are implemented in educational institutions to integrate children with disabilities to meet their individual needs.

It should be noted that the heads of preschool and school organizations recognize the presence of certain problems in the process of integrating children with disabilities into the

general educational process. The most frequent of them are conflicts between children, as well as between parents, attributing disorders in the behavior of homotypic and "special" children. The respondents noted the unwillingness of society to accept children with disabilities and their characteristics, as well as a weak connection between speech therapists, defectologists, and parents. The heads of schools and kindergartens also recommend strengthening seminars, training, and coaching to improve the work with parents to improve their legal literacy and involve them in work with children.

During the interview with the school administration, questions were asked about the state and quality of theoretical and methodological training of special teachers for work in general education schools and kindergartens, difficulties, and problems in the selection of personnel for special teachers. At the same time, the understanding of the administrative staff about what organizational and personal qualities a special teacher should have to work with children with disabilities in general education conditions, as well as the opinion on how to improve the process of training special teachers in higher educational institutions, is determined.

During the interview with the school administration, questions were asked about the presence of special teachers (defectologists) in the staff of the organization, as well as what specialization they have (speech therapist, sign language teacher, oligophrenopedagogue, typhlopedagogue, etc.). The opinion of the administration on the sufficiency and expediency of such a volume of special teachers (defectologists) for effective work with children with disabilities in an inclusive organization has been determined.

Analysing the answers of the respondents, it can be noted that while most schools have introduced the rate of a speech therapist, so far there is no full-time rate of a special teacher/ defectologist. Recently, about 30% of schools have "opened" the rate of defectologists, which respondents consider insufficient, although they still need several rates of speech therapists, speech therapists, and assistant teachers. At the same time, representatives of the administration noted that even if special teachers (defectologists) are introduced in several doses, then it will be somewhat difficult to find good specialists for these doses. The selection of specialists with a certain work experience and experience in working with a certain category of children is a difficult task for organizations.

The leaders noted that many young professionals quit due to low wages and difficulties in working with "special" children. It is noted that some specialists who come after the educational institution do not have sufficient qualifications to work with children with special needs. In some cases, it was also noted by the leaders that some special teachers experience emotional and psychological difficulties when working with children with disabilities. This can cause difficulties in finding and recruiting specialists. As one of the school principals noted, "Many schools of the city, region do not have specialists, specialists do not go to general education. For example, I had problems with the reception of special educators. They were intimidated by the fact that we are a resource center, and we have a lot of documents. Specialists are intimidated by work in general education classes. Special classes are understood and accepted by them in their activities. Many special teachers are afraid to work in a comprehensive school, this is probably due to the curricula, and they do not always know the "updated programs" well. They say that we were trained in defectology, but we do not know general education programs.

During interviews with respondents from among the school and kindergarten administrations, certain concerns were expressed that along with children with mental retardation, a category of children with mild mental disabilities is taught in their schools. The directors and heads of general education schools who were interviewed also spoke about the fact that subject teachers and primary school teachers who teach these children face significant difficulties when working with this category of children.

Results and discussion. Feedback was received from the heads and directors of kindergartens, and deputy directors of schools on what skills special teachers should have. In the course of interviews with general education teachers regarding the readiness of special teachers to work with children with disabilities, the level of expectations and requirements for professional

qualities was determined, which presupposes the presence of certain organizational skills, as well as personal qualities that a special teacher should possess. Thus, according to general education teachers, to effectively work with children with disabilities in the context of inclusive education, a special teacher needs well-established diagnostic skills to determine the direction of education suitable for the child. In their opinion, it is important to "feel the child inside out", as well as Be Creative, and know modern innovative technologies and methods (Shin et al., 2023; Demir 2021). According to general education teachers, the necessary skills include the skills of maintaining relevant documentation, the skills of individual work with the child and collective work with the class as a whole, and the ability to resolve various conflict situations that arise in the learning process. According to the teacher of one of the Pavlodar schools, "for a special teacher in our school, first of all, hard work, responsibility, knowledge of their business is important. This is not only the presence of a diploma, it must be a person who is engaged in himself, in his own business. It should have its developments, methods, and techniques."

To the list of personal qualities of a special teacher, the interviewers included love for children, sensitivity, patience, kindness, humanity, hard work, and perseverance.

Summing up the answers of heads and teachers of kindergartens and schools about the skills that are necessary for special teachers, the following main points can be distinguished:

Competence: A special teacher must have in-depth knowledge and skills in the field of special pedagogy. He must be well-trained and keep his knowledge up to date according to the latest advances in the field.

Pedagogical ethics: A special pedagogue must observe professional ethics, including confidentiality, respect for the rights of children and their parents, and compliance with professional standards and norms.

Practical skills: Professionals must have the practical skills necessary to work with children with disabilities. This may include the use of multimedia tools for conducting classes and various methods of correctional and developmental pedagogical activity.

Ability to understand the child: Special teachers should be able to understand and listen to a child with disabilities, establish emotional and psychological contact, and show respect and love for the child.

Flexibility and adaptability: Special educators must have a predisposition and flexibility to the behavior and various needs of children. This inserts the flexibility of communication, the ability to find an approach to each child and evaluate any achievements of the child.

Communication skills: Special teachers should be able to effectively communicate with children and parents, establish contacts, find common points of contact, and resolve conflict situations.

Cooperation of children with their parents: To achieve a positive result, it is necessary to be able to consult and communicate effectively with parents.

Patience and emotional closeness: Special educators should be patient and have a sense of empathy for the child. This will help them build a trusting relationship and provide emotional support.

Love for children: Professionals must feel true love for children and strive to help each child with their care and learning.

Honesty and sincerity: A dedicated teacher must be a reliable and honest specialist. It implies the correct performance of their duties with a high level of responsibility and honesty about children and their parents.

Communication skills: The special pedagogue must have good communication skills to establish effective communication with children, their parents, and other professionals. This includes listening, expressing yourself, and understandably explaining complex concepts.

Emotional stability and stress resistance: Working with children can be difficult and cause emotional tension, in this regard, the specialist pedagogue must have emotional stability and the ability to manage stress effectively to continue his work at a high level.

Working in a team: The ability to work in a team and find a common language with colleagues is an important professional skill for effective work and exchange of experience.

Responsibility and self-esteem: Special educators must be responsible and be able to truly

value themselves. They must critically evaluate their work and constantly improve themselves to successfully work with children (Saeed et al., 2023).

Organizational skills: Special teachers need to have the skills to effectively organize their activities, develop individual programs, and plan work. Specialists should be able to organize various events, cooperate with their parents and colleagues, and create and maintain a positive atmosphere in the educational process. The importance of this skill is evidenced by some statements from administration representatives and general education teachers. Thus, one of the school principals said:"...It is, first of all, the ability to organize their activities and the activities of the team. A special teacher should be able to model his activities, use innovative technologies, and be ready to interact in a team of like-minded people."

Conclusion. Based on the results of interviews with the administration and teachers of inclusive organizations in different regions of the Republic of Kazakhstan, it can be noted that, in their opinion, one of the main requirements for the training of special teachers is their practical readiness for work in the conditions of general education. Teachers and educators note that to effectively work with children with disabilities, future special teachers need to accumulate practical work experience, often visit general education schools and kindergartens, and undergo internships. They believe that this will allow them to better adapt their knowledge to the specific needs of disabled children who are educated with homotypic children.

Representatives of the administration and teachers make assumptions about the need for a wider specialization of special teachers, emphasize the importance of open interaction and cooperation between universities and general education schools, propose to introduce additional academic disciplines and elective courses into curricula that will help students master modern diagnostic methods, innovative technologies and adapt to different needs of children. The respondents note the need for psychological knowledge and communication skills of special teachers, who believe that it is important for specialists to be ready to work with a wide variety of special educational needs in children and take into account their characteristics. The opinion of the administration and teachers of general education preschool and school organizations indicates the need for appropriate pedagogical and methodological knowledge, as well as the established ability to work in an inclusive environment, the ability to analyze the behavior and needs of children, predict their reactions and acquire psychological skills.

The conducted study indicates the need to strengthen practical and psychological training and provide guidance and mentoring by the most competent, experienced specialists to provide psychological support and methodological assistance to novice special teachers. Organization of comprehensive and systematic fundamental and applied research to determine the professional competencies of these specialists in New conditions (inclusive education, early development of children, education of children with severe and complex disorders, autism, etc.) as possible solutions to the problems of insufficient inclusive-oriented training of special teachers in Kazakhstani universities and methods of their continuous training in universities, as well as after graduation, strengthening control over the quality of scientific research) development of scientific-based educational and methodological support, organization of regular professional development of university teachers who train special teachers, and much more.

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THE DEVELOPMENT OF DIGITAL COMPETENCIES AMONG TEACHERS IN THE CONTEXT OF TRANSITION TO THE «UNIVERSITY 4.0»

Abstract

The article is devoted to describing the digital skills required of pedagogical employees to function in the contemporary educational environment. Also, the article discusses potential methods for developing prospective teachers' digital capabilities in a university setting through the creation of contemporary, pertinent, and in-depth content as well as instructional, methodological, and informational assistance.

The most popular methods for structuring the competency model of job candidates for Industry 4.0, including behavioral and digital skills, are covered in the article. On the basis of an analysis of the likelihood of achieving particular performance indicators in the sphere of vocational education, the limitations in the growth of graduates' digital capabilities were demonstrated. Different interpretations of the traits of digital competences in Kazakhstan and other countries are offered to create a cohesive approach. The degree of digital literacy of contemporary future teachers was evaluated to examine the viability of developing a digital learning environment at universities.

The influence of the digital economy on the development of a set of key abilities and the education of experts in demand in contemporary society is what gives this piece its relevance. The majority of models and frameworks are concerned with evaluating university teachers' level of digital competences, which are a collection of knowledge, abilities, and attitudes required for a teacher to use technology effectively. The impact of the digital economy on the development of a set of core competences and the education of experts in demand in the contemporary world.

Keywords: digital competencies, successful pedagogical activity, modern educational space, ICT competencies.

Introduction. Nearly every nation in the globe is currently impacted by the digitalization process. Each nation sets its own priorities for digital development at the same time. National digitization plans are now being implemented in more than 15 different nations. China, Singapore, New Zealand, South Korea, and Denmark are the top nations in the world when it comes to

digitalizing their economies. China is integrating digital and traditional industries through its Internet Plus program, Canada is building an ICThub in Toronto, Singapore is developing an ICT-driven Smart Economy, South Korea is concentrating on human capital development, entrepreneurship, and the sharing of accomplishments through its Creative Economy program, and Denmark is concentrating on the digitalization of the public sector.

Digital competence and literacy are not defined in the current legislative framework, the Law «On Education» (Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III). Information and communication technologies, which are regarded as higher education in ICT, are included in the SCES of higher and postgraduate education.

According to the Concept of Modernization of Pedagogical Education of the Republic of Kazakhstan, at the moment, purposeful work is underway to digitalize educational organizations: relevant disciplines have been introduced into educational programs in the field of Pedagogical Sciences, qualification requirements for university teachers have been adjusted, intense work begun for university teachers and future school teachers to develop new specific digital competencies.

As part of the National Program «Digital Kazakhstan» from 2017, many events were held to develop the digital competencies of teachers. For example, digital platforms have been created, such as E-School, which allow educators to create and use electronic textbooks, conduct online lessons, and organize interaction with students and parents.

Also, programs for advanced training of teachers in the field of digital technologies were developed. For example, within the framework of the Digital Competences of Educators program, teachers are allowed to be trained in the basics of using digital technologies in the educational process.

Literature review. There are clear trends in the advancement of higher education in the current environment, including a shift in the status of universities due to increased risks and experimentation in scientific activities, the shift from competition to partnerships, access to large databases (Big Data), the transition to open educational resources of various formats (Open Online Resources), a combination of new and traditional formats of training, and the renovation of classrooms in traditional and new ways. Technologies like learning on mobile devices (Bring Your Own Devices), the switch to «flipped classes» (Flipped Classroom), the development of «designer spaces» (Makerspaces) – high-tech platforms using 3-D printers, the development of «wearable» technologies like Google Glass, the growth of adaptive learning through the introduction of digital platforms, and the use of artificial intelligence (AI) in learning are just a few examples.

University 4.0 is a new generation of universities that use hi-tech to provide an education that meets today's challenges. The development of digital competencies in future teachers plays a key role in the creation and support of such universities (Oddone 2023).

The development of digital competencies among teachers in the context of the transition to the «University 4.0» model is of high scientific importance. This is due to the need to adapt educational institutions to new requirements caused by the rapid development of digital technologies and the changing needs of students and the labor market (Basilotta-Gómez-Pablos et al., 2022).

The importance of developing the digital competencies of teachers in the context of the transition to the "University 4.0" model lies in the fact that they will be able to successfully integrate digital technologies into the educational process, create new electronic learning materials, and use online platforms for conducting classes and communicating with students. This will create a flexible educational environment that can respond to the needs of modern society and the labor market (Roll & Ifenthaler 2021; Auer & Rüütmann 2021).

Additionally, the improvement of educational quality, an uptick in student motivation, and an increase in the effectiveness of the teaching process can all result from teachers developing their digital competences (Tomczyk & Fedeli 2022). According to research on individual innovativeness in nurses by Danac et al. (2023), educators with digital skills can better adapt to

changes in the educational environment, establish innovative teaching techniques, and take part in the development of new digital technologies for education.

The active development of the virtual educational space in recent decades has become a natural response of the higher education system to the challenges of the information society. The modernization of the educational process undertaken in this regard has actualized the problems of organizational, managerial, resource, normative, educational, methodological, and program updating of educational programs of universities. A necessary condition and an indispensable element of this modernization, the successful introduction of digital innovations in the educational process is the readiness of the teaching staff to work with electronic educational resources, digital content, and platforms for organizing distance learning (Fursykova et al., 2022). The lack of such readiness reduces the quality of the educational process, leads to the professional isolation of teachers, and narrows the educational opportunities of students. It cannot be unequivocally stated that this problem manifested itself only in an unfavorable epidemiological period and became a serious obstacle to the organization of distance learning, It existed before but was more latent, and did not have such large-scale negative consequences for the quality of education. In this regard, we have attempted to analyze the problem of the teacher's readiness to organize digital learning and offer a vision of its solution.

In recent years, in pedagogical science, the issue of building a model of teachers' digital competencies has been actively discussed, since the degree of their formation will determine the effectiveness of the digital educational process. Based on the analysis of various models of digital competencies presented by expert and scientific communities, Antonova et al., (2018), substantiate the possibility of applying these models to the digital competencies of a teacher. The authors conclude that the teacher should be required to express pedagogical competencies, including the processes of using digital resources, as well as organizing training, assessing, and empowering students when using these resources. At the same time, the digital competencies given by the authors (working with information, searching for it, critical perception, checking for reliability, using social networks, producing multimedia content, and security), ensure the digital literacy of any representative of the information society, is the most important basic requirements for the work of a teacher in digital education. Basic digital literacy is a necessary condition for professional development in the field of introducing digital technologies into the educational process.

Main part. The concept of digital literacy was first introduced in 1997 by Paul Gilster, an American writer and journalist. According to Gilster (1997), constantly being on the Internet, in the field of hypertext, which makes it possible to quickly navigate from one resource to another, forms new patterns of human behavior, information search techniques, and communication features. This leads to the formation of network thinking, the main feature of which is a high degree of information and communication activity. Digital competence emphasizes socio-communicative aspects of human activity. Gilster (1997) identifies the following skills as criteria for achieving digital competence:

1. skills to search for the necessary information and tools for working with it, the ability to quickly master these tools (information competence);

2. communication skills with other users (communicative competence);

3. skills in the production of information in its various forms and formats (creative competence).

Tejada et al., (2018) believe that digital competence has gained a lot of importance in the educational context in the last decade. There are several reasons, on the one hand, the use of technology has become a daily occurrence; on the other hand, the professional development of many citizens largely (and increasingly) depends on the efficient and effective use of ICTs. Cabero et al., (2020) point out that digital competence is one of the key competencies that citizens in general and educators in particular must master in the society of the future.

Digital competence is one of the eight core skills for a complete life and active citizenship, according to the Framework for the Renewal of Core Competences for Lifelong Learning

(2018/C 189/01), which was accepted by the European Parliament and the Council of the EU in 2018. Digital competence is the ability to critically and confidently use information society technology for communication, learning, job, and enjoyment.

According to DigCompEdu, educators need the following digital resource competencies:

− Selection of digital resources;

− Creation and modification of digital resources;

− Digital resource management, protection, and sharing (Redecker, 2017).

Digital competencies are the confident use of ICT in work, leisure, and communication. Indeed, in the information society, the ability to search, analyze, and use information is one of the most important qualities of a person. Competence development indicators can be divided into five areas: information retrieval, communication, content creation, network security, and problem-solving (Table 1).

Table 1. *Comparison of digital competencies of a teacher and a student*

Teacher	Student
Knows the principles of preparing students for life in a digital society.	Knows and uses educational programs, applications, and games in their studies.
Knows the latest educational trends in the IT field.	Creates texts, graphics, and multimedia presentations.
Knows gamified software educational support, taking into account the interests of students.	Uses social media to communicate with fellow students.
Constantly uses new IT technologies to improve the quality of education (for example, web quest, video games, augmented reality).	Looks for relevant information on the web, including invisible to search engines.
Adapts the capabilities of computer programs to present their ideas to students.	Able to work remotely in a team.
Shows students the ways and techniques of using digital technologies to consolidate their knowledge and solve educational problems.	Able to creatively use innovative IT technologies.
Uses ICT ethically, respecting copyrights.	Aware of the ethical and legal aspects of working on the web.
Respect the confidentiality of the information and take care of its image on the web.	Critically and reflectively evaluates web content.
Collaborates with colleagues using IT tools.	Use interactive media safely for yourself and others.
Critically evaluates information from the web network in terms of its reliability.	Able to use remote services offered on the Internet.

In areas including curriculum planning and design, learning resources, classroom management, giving feedback, and performing pedagogical exams, among others, Perifanou et al.'s research reveals that more than half of educators have never used digital tools (Perifanou et al., 2021). Technology integration into classroom instruction is challenging when educators don't embrace it well (Legris et al., 2003; Bai et al., 2020), which prevents technology from structurally altering learning (Lei, 2018; Tondeur et al., 2019).

Willis et al., (2019) note that students should prepare for this digital world by acquiring relevant competencies. Furthermore, Martin et al., (2020) in their research recorded that students are prepared for an integration of online studies in education. According to Mußmann et al., (2021), this is a significant responsibility for teachers to mediate and promote student competencies. Consequently, the requirements for teachers have not only changed but also increased.

This view is shared by Harrell & Bynum (2018), who believe that educators have a responsibility to integrate technology into the teaching and learning process to prepare students with the necessary skills for career advancement in the 21st century. Preparing digitally literate learners requires educators to use appropriate digital tools and systems in educational environments (Falloon, 2020). According to Janssen et al., (2013), digital competence includes more than

knowing how to use technological devices and applications. Therefore, educators should have a set of necessary technological competencies that will be useful when introducing technology into classroom practice.

In the works of researchers Yachina & Fernandes (2018) there are three main digital competencies related to learning activities:

1. the ability of the teacher to focus on digital means of creating and using educational resources;

2. The teacher must be able to distinguish between the main digital educational resources and use them in the classroom in an educational institution;

3. the ability to design training sessions using digital educational technologies (Yachina & Fernandes 2018; Dukhovnikova & Korol 2021).

Zhumasheva (2021) considers the digital literacy of a teacher as a system of basic knowledge, skills, and attitudes in the everyday use of digital technologies. According to Akhmetova et al., (2023), it is very important to solve the problem of digital literacy of modern teachers of higher educational institutions; this will help to understand the readiness of teachers to digitalize education in general and determine their role in the educational space using distance technologies.

Purpose of study. It is the educator's responsibility with information competence to indicate to students which sources are authentic and regularly updated, or if there are other useful sites related to the discipline, and more importantly, if the information is written in biased language or objective. It is the teacher who inspires students to creativity fast deep thinking and logical analysis. This way, students come out with original ideas and their answers. The teacher should encourage them to have a comprehensive knowledge of the relevant software.

In this regard, we consider it important to study the level of ICT literacy of teachers of Kazakhstani universities, which includes, by analogy with the European model of digital competencies for education, six modules. The study aims to measure the level of ICT literacy of teachers of the Abai Kazakh National Pedagogical University and the University of Turan-Astana.

Materials and methods. The teacher, whose employment is undergoing considerable changes, is given a significant role in the process of developing students' digital competencies and providing the digital educational environment required for this in universities. Modern educators should be able to operate in an electronic information and learning environment, use a variety of IR technologies, arrange students' work both inside and outside of the classroom using online resources, etc. As a result, when professors stop acting as "translators of knowledge" and start supporting students' individualized training, the way they interact with one another should change substantially. Regarding this, the readiness and level of growth of digital competencies are issues.

Participants. For this article, we conducted a study to measure the level of ICT literacy of university teachers (Redecker, 2017), namely the Abai Kazakh National Pedagogical University and the University of Turan-Astana.

Data collection tool. The data collection instrument was the European model of digital competencies for education's six modules.

Data analysis. Data was analysed using statistical methods. Descriptive statistics were taken, and a chart was used to present the results.

Results. The results from the European model of digital competencies for education's six modules per the responses of our participants are summarised below.

1. The professional duties of teachers in the context of the adoption of digital technologies are expressed not only in their willingness to use them in the educational process, but also in the demonstration of skills like the desire for ongoing development in the digital environment and their willingness to collaborate in the workplace. Only 75% of respondents used digital tools routinely for communication with coworkers and students, and only 45% used them to share professional development or work together on materials with other teachers. 20% of those surveyed talk about potential uses of digital technology in education with coworkers and, if necessary, assist in the creation of suitable techniques (Figure 1).

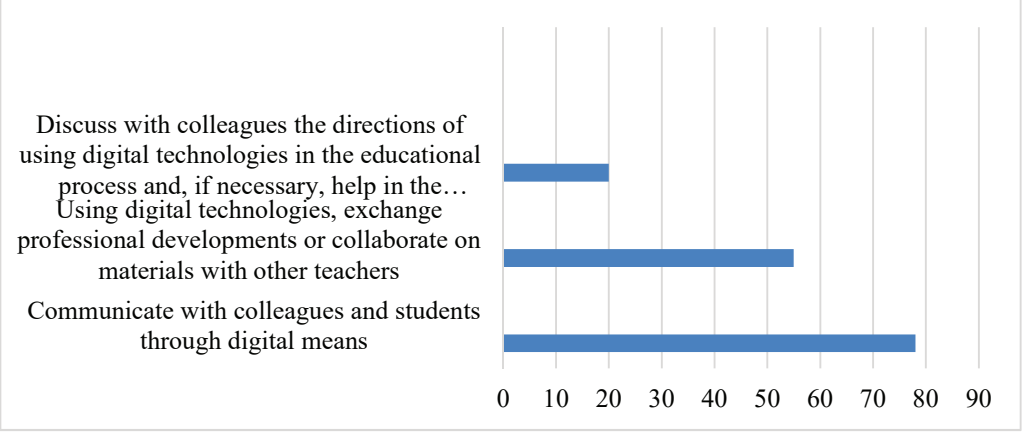

Figure 1. The results of the professional duties of teachers in the context of the spread of digital technologies

2. The ability of teachers to select, develop, and alter *digital resources*, as well as share them in accordance with learning objectives, is implied. According to the survey, 45% of participants compare and choose online resources based on specific criteria and are willing to offer advise to colleagues in this area. 48% of respondents said they either produce new educational materials from scratch or adapt ones that already exist. At the same time, only 25% of educators utilize security measures like encryption and passwords to safeguard data in a digital setting. It might be inferred that they are either unqualified or have little interest in safeguarding private information (Figure 2).

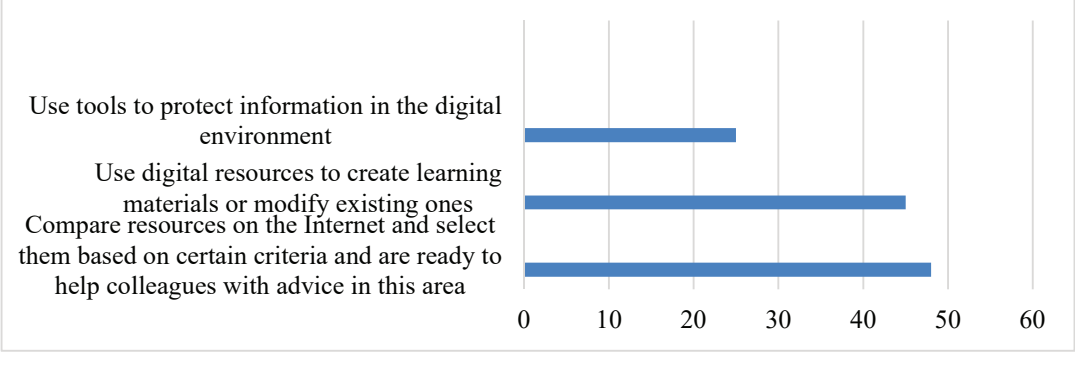

Figure 2. The results of teachers' ownership of digital resources

3. The ability of a *teacher to design, organize, and apply digital technologies* at various learning stages is essential for both teaching and learning. The student must be at the heart of the learning process, as was already established, and the teacher should serve more as a tutor. The study's findings revealed that teachers actively employ digital tools to plan students' education (Figure 3).

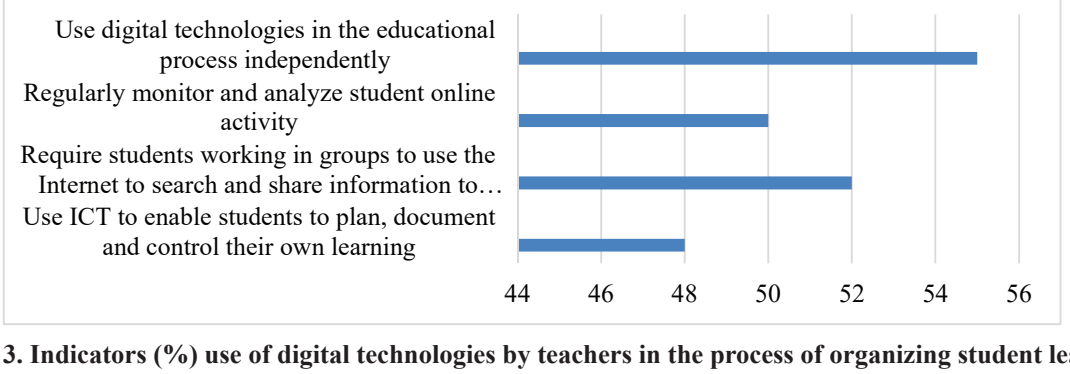

Figure 3. Indicators (%) use of digital technologies by teachers in the process of organizing student learning

4. Digital technologies are used to integrate current *student assessment* techniques, give students feedback, and analyze their online behavior when conducting student assessments. In our study, we discovered that 50% of educators utilize digital tools to evaluate and monitor the development of their students, and that nearly half (48%) also use them to give feedback to the pupils. And 35% of respondents do this on a regular basis to identify which pupils require further help and support (Figure 4).

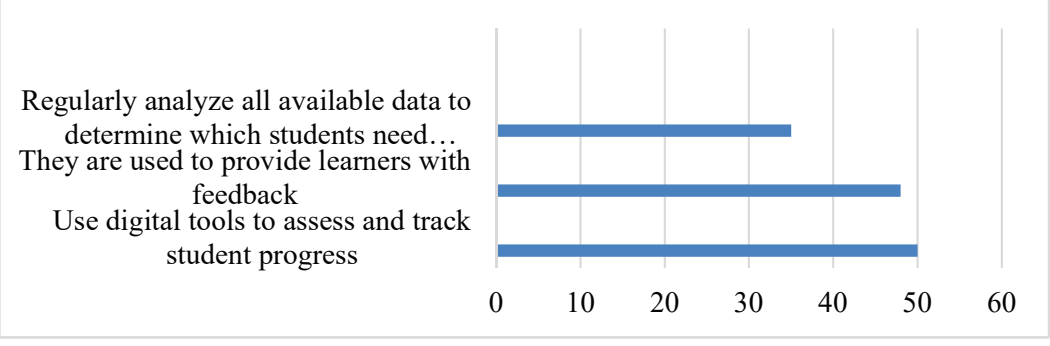

Figure 4. Indicators (%) use of digital tools to implement existing student assessment methods

5. The use of digital technology by teachers to create individualized learning paths for students as well as the abolition of differentiation in students' access to suitable technical equipment are both necessary for the *empowerment of students' rights, opportunities, and independence in the educational process*. According to the poll, only 35% of teachers talk with their students potential issues related to their availability of digital devices required for performing educational activities and attempt to identify solutions. In addition, a third of educators (or 30%) employ digital tools to make sure that the educational process fully accommodates each student's unique demands.

6. A significant part of a teacher's digital competence is their ability to help pupils *develop their digital literacy*, and many survey participants stated that they engage in this kind of work. It is clear that most teachers give their pupils assignments that allow them to improve their digital literacy, and one-third of them (78%) actively encourage this. Teachers' efforts are focused on teaching pupils about digital technology security (65%) and evaluating the veracity of the information received (75%; Figure 5).

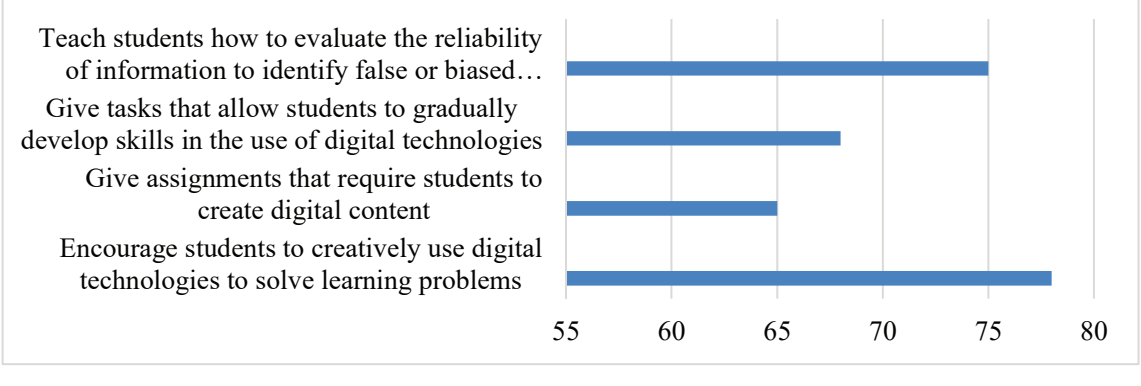

Figure 5. Indicators (%) of respondents' answers in the block «Development of digital literacy of students»

Based on the results of the analysis of six modules, it can be concluded that the teachers demonstrated an average level of digital ICT proficiency, but at the same time, there is a tendency to increase professionalism and interest in development in this area.

Discussion. As part of the study, the structure of the model of digital competencies of teachers

is proposed, the functional part of which contains blocks: conceptual (goals, objectives, principles, and content of education), technological (algorithm for designing a trajectory, creating a digital educational environment, teaching methods), criteria (levels and descriptors of competencies), reflective.

The content is represented by blocks-modules of digital competencies (Fig. 6).

Module 1. Digital tools and resources. Use of technological equipment. Electronic portfolio of teacher and student. Digital profile.

Module 2. Digital technologies of interaction. Digital assistants: instant messengers, forums, chats. Digital tools for group work: interactive whiteboards, and video conferencing services.

Module 3. Online educational services. Network interaction. Organization of educational projects, distance olympiads, and competitions. Gamification. Quizzes, quests.

Module 4. Digital technologies of e-learning. Distance learning course. Creation of a digital educational environment. The constructor of lessons, tests, and sites for creating educational content. Cloud technologies in education.

Module 5. Digital assessment technologies. Digital Services and Formative Assessment Tools. Learning analytics and visualization of learning outcomes. Trainers.

Module 6. The digital culture of the teacher. Flipped class. Blended learning. Learning management systems. Augmented reality technologies. Organization of an educational event.

Module 7. Development of a digital culture of students. Creation of digital content. Rules of digital etiquette. Security in the digital space.

The algorithm for constructing an individual educational trajectory involves the following sequence of actions:

1. Diagnostics of the initial level of the teacher's digital competencies in seven areas of the content structure of the digital competencies model in three areas (knowledge, skills, motivation);

2. Visualization of the results using Excel and the formation of an individual profile of the teacher's digital competencies, identification of priority areas for development;

3. Allocation of modules of the training program, the level of development of competencies;

4. Determination of the ways of studying, the methods and technologies of teaching used, and the forms and means of monitoring the results;

5. Coordination of the study of the module, correction of progress along an individual educational trajectory;

6. Formation of a portfolio with the results of educational activities;

7. Diagnostics of the achieved level of digital competencies of the teacher;

8. Reflection, analysis of results;

9. Determination of directions for continuing education, a new cycle.

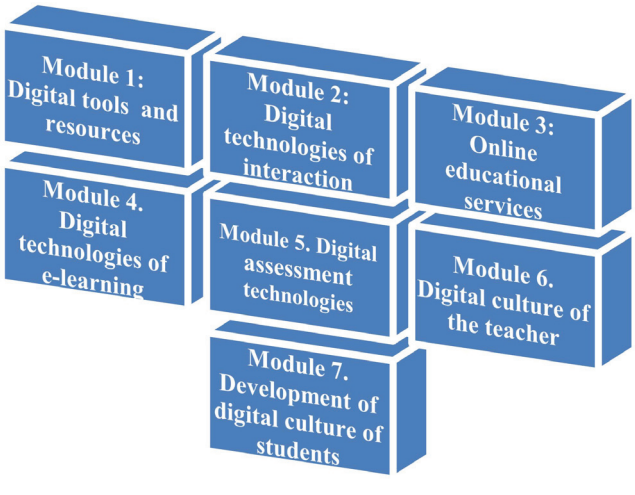

Figure 6. The content of digital competencies in blocks-modules

Conclusion. The proposed model of the continuous development of digital competencies of teachers allows to characterize managerial activities for the development of the digital

potential of an organization, reveals the mechanism for eliminating the difficulties of teachers with an insufficient level of digital competencies, solves the problems of differentiation of methodological support for teachers, and increase the level of readiness of teachers to change pedagogical practices.

The challenges of Industry 4.0 determine the importance of developing universal competencies that include both behavioral and digital skills. This combination will create a unique competitive advantage for a person and an organization, determining success in the digital economy. At the same time, a high level of development of digital competencies will ensure the necessary efficiency of people's activities in all spheres of life.

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THE ESSENCE AND ROLE OF DISTANCE LEARNING IN THE FORMATION OF PROFESSIONAL COMPETENCES OF THE FUTURE FOREIGN LANGUAGETEACHER

Abstract

This article delves into the pivotal theme of formation of professional competences among future foreign language teachers within the framework of distance learning. A comprehensive research was conducted to explore the multifaceted concept of "distance learning," which entails indirect interaction between educators and learners the adept utilization of information and communication technologies, digital resources, diverse electronic devices, electronic communication tools, and telecommunication services. The study meticulously traverses the evolutionary trajectory of distance learning, including correspondence education, case study, broadcasting learning, and networking learning. Additionally, it casts a discerning spotlight upon distinct models of distance learning, such as distance learning based on a single university with the traditions of classical education, distance learning based on the cooperation of several educational institutions, and distance learning at universities specially created for this purpose. The article further navigates through the intricate organizational and methodological constituents intrinsic to distance learning. This intricate tapestry comprises the domains of marketing, educational and material, financial and economic, and identification and control subsystems. Notably, the article undertakes an exhaustive exploration of the strengths and weaknesses inherently associated with distance learning.

Keywords: formation of professional competences, future foreign language teachers, distance learning, distance education, higher education institution, information and communication technologies (ICT)

Introduction. In the wake of the global pandemic, higher education systems worldwide were compelled to suspend in-person instruction on a massive scale and swiftly transition to providing distance education services. This abrupt shift presented significant challenges, primarily due to the limited time frame within which countries had to adapt, compounded by a multitude of factors.

Distance learning posed challenges not only for students but also for educators and government bodies such as the Ministry of Education and Science of the Republic of Kazakhstan. These stakeholders faced the formidable task of organizing and implementing a comprehensive and systematic protocol for distance education in higher education institutions.

While distance learning has been the subject of extensive research, many of the findings and recommendations were not specifically tailored to the unique circumstances brought about by the COVID-19 pandemic. Given the novel reality in 2021, it becomes even more pertinent to investigate the educational processes within universities and understand their implications within the current context.

Article 1, Paragraph 38 of the Law of the Republic of Kazakhstan "On Education" provides a clear definition of distance learning as "a form of instruction conducted through teacher-student interaction at a distance, utilizing information and communication technologies and telecommunication tools" (Zakon Respubliki Kazakhstan, 2011). These legal provisions form the basis for the integration of subjective concepts in forming the professional competences of prospective foreign language teachers in higher education institutions.

Consequently, it is no coincidence that distance learning is highlighted as a methodological approach for the modernization of the entire education system within the regulatory documents outlining the educational development strategy in our country. Moreover, the outbreak of the

COVID-19 pandemic has further accentuated the significance and relevance of distance education within the realm of domestic pedagogical theory and practice, as the transition to distance learning technologies became imperative during this challenging period.

Hence, it becomes imperative to undertake a comprehensive exploration of the concept of "distance learning," meticulously analyze its essence, and ascertain the various approaches through which it can enhance the professional development and formation of aspiring foreign language teachers. Extensive scholarly literature demonstrates that the issue of distance learning is not solely focused on enhancing the educational system for learners during the teaching process; rather, it also serves as a potent tool for fostering the acquisition of professional competences among future foreign language teachers. Therefore, let us now delve into a detailed analysis of the key concepts delineated above.

Main part. According to the Pedagogical Dictionary, distance learning is defined as "a methodically organized technological approach aimed at purposefully managing the educational activities of students who reside at a considerable distance from the educational institution, regardless of their educational level or stage of training" (Zagvyazinskiy et al., 2008). In this context, distance learning entails employing various tools and methods of logical pedagogical communication between the teacher and the student, necessitating a minimal number of compulsory in-person sessions.

To facilitate distance learning, a range of didactic materials, including electronic resources such as work programs, methodological guidelines, textbooks, reports, and educational tools, as well as audio and video courses, are specifically developed and utilized. Additionally, automated learning systems, electronic libraries, and other technological resources are employed to facilitate the delivery of educational materials, manage and monitor the educational process. These approaches are particularly advantageous for offering specialized programs that cater to specific educational requirements.

Studying the evolution of distance learning, we highlight several of its stages (Nasibullov, 2013). The stages of the evolution of distance learning are shown in the figure below (Figure 1).

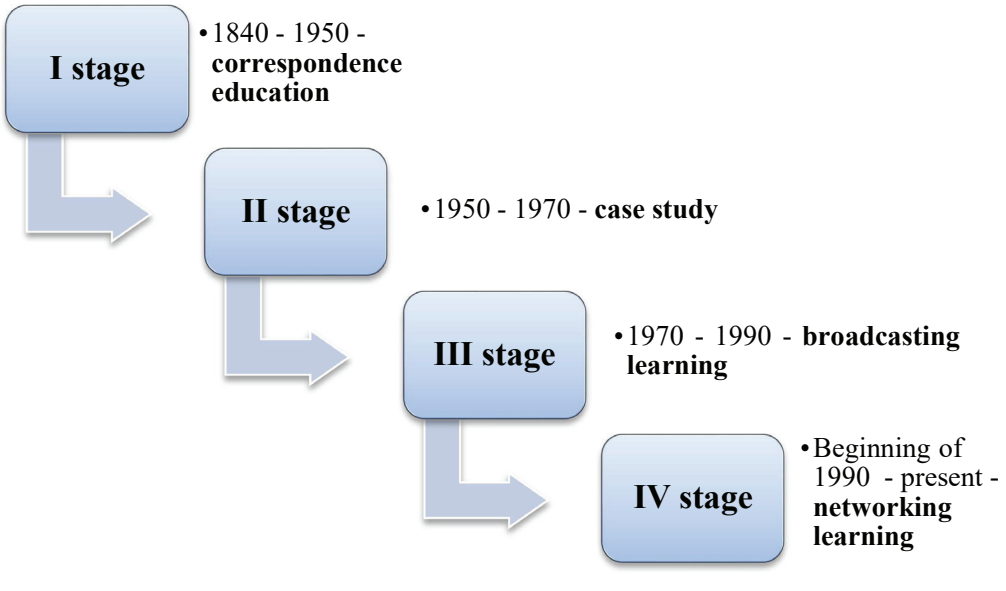

Figure 1. Stages in the evolution of distance learning

In his work, R.R. Nasibullov (2013) outlines the historical progression of distance education, highlighting two primary directions of development:

The first direction involves correspondence education, which emerged during the formative period of distance education. This form of education relied on correspondence as a means

of communication, initially through conventional mail and later transitioning to electronic correspondence.

The second direction centers on the advancement of distance communication systems that leverage telecommunication technologies, as well as audio and video recording tools, within traditional face-to-face education and training settings. The evolution of such tools facilitated the dissemination of daytime classes to distant (remote) audiences situated at a distance.

Foreign scholars have extensively examined distance learning within the realm of educational activities, resulting in the proposal of various definitions. Several notable definitions include:

- a form of independent learning through self-study texts and remote communication (Sampson, 2003).

- encompassing the separation of teachers and students, allowing for scientific courses to be conducted in an educational environment (Harsasi & Sutawijaya, 2018).

- the provision of various forms of training to learners at their place of residence or workplace, eliminating the need to attend an educational institution physically (Mahasneh, 2020).

- a process occurring in either a synchronous or asynchronous environment, facilitated by diverse devices (e.g., mobile phones, laptops). With internet access, students can engage in communication with teachers and fellow students independently, regardless of their location (Singh, 2019).

The analysis of the aforementioned definitions highlights the underlying theme of distance learning, namely, the indirect interaction between students and teachers facilitated by the advancements in information communication technologies, digital resources, various devices, electronic communication tools, and telecommunication services. These technological developments have revolutionized the educational landscape, enabling remote interaction and collaboration between participants in the learning process.

Expanding on the notion of "distance learning" within a broader framework, Fursykova et al. (2022) define it as "an individualized form of organization of professional training, which takes place through the indirect interaction of distant participants in the educational process in a specialized environment that operates on the basis of modern psychological, pedagogical and information and communication technologies". According to these scholars, distance learning can be regarded as a form of education that enhances the professional development of future teachers. This perspective underscores its efficacy as a valuable method for training prospective specialists in the field.

The issue of distance learning has been extensively explored by Russian scholars, including A.A. Andreyev (1997). He addresses the intricacies surrounding the definition of "distance learning" and proposes the following definition: "distance learning is an educational approach that encompasses both full-time and part-time education, incorporating a combination of traditional and innovative methods, tools, and learning formats. It relies on the utilization of computer and telecommunication technologies within the educational process" (Andreyev, 1997).

L.P. Khalyapina (2000), a prominent scholar in the field, conducted extensive research on distance learning systems and their application in enhancing the effectiveness of foreign language instruction. According to the scientist, the integration of information and communication technologies, particularly through global computer networks, enables individual students to directly connect with native speakers of the language being taught in traditional classrooms. This interactive engagement facilitated by technology proves instrumental in successfully addressing the challenges associated with developing various oral communication skills in foreign language learning. Consequently, distance learning serves as a valuable medium for acquiring proficiency in a foreign language.

D.M. Dzhusubaliyeva (1997), an esteemed Kazakh scholar, made significant contributions to the exploration of distance education. In her doctoral thesis titled "Theoretical foundations of the formation of information culture of students in the conditions of distance education," Dzhusubaliyeva (1997) presents distance education as a novel form of education distinguished by its multifaceted educational services, distinctive teaching methodologies, and

heightened engagement of the participants in the educational process. Furthermore, she identifies four distinct forms of distance education, as depicted in Figure 2 (refer to Dzhusubaliyeva, 1997).

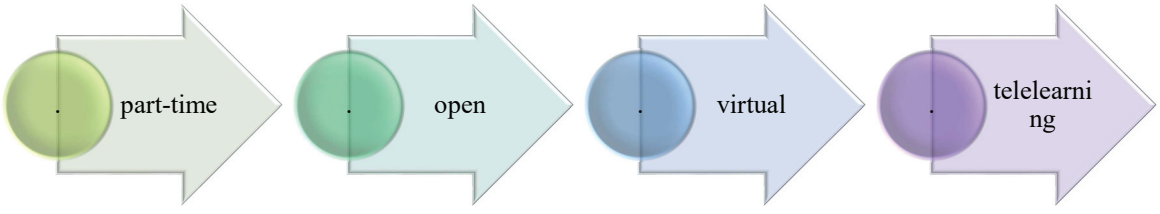

Figure 2. Forms of distance learning according to D.M. Dzhusubaliyeva

E.S. Polat et al. (2004) thoroughly examined the theory and practice of distance learning in his research. He arrived at the conclusion that pedagogical technologies in distance learning encompass a comprehensive array of teaching methods and approaches that are instrumental in realizing the distance learning process in alignment with the chosen instructional framework.

However, despite the variations in terminology, it is evident that the definitions provided by various scholars converge towards a common understanding. This can be observed through a content analysis of their opinions, as depicted in Table 1. The table presents a comprehensive overview of the key elements and characteristics encompassed in the concept of "distance learning" as defined by these scholars.

Table 1. *Content analysis of the definitions given to the concepts of "Distance education"*

Author	Definition	Main idea
1	2	3
E.S. Polat, M. Yu. Bukharkina, M.V. Moiseeva	Distance education as a purposefully organized and systematically implemented process for acquiring knowledge, skills, and abilities	knowledge, ability, skill
A.A. Andreyeva, E.S. Polat, A.V. Khutorovskoi	Distance learning as a spatial separation between the student and the teacher, while maintaining constant contact through special methods that determine the structure of the training course, the form of monitoring, and the methods of communication facilitated by basic Internet technology	space, communication, internet technology
A.A. Andreyev, V.I. Soldatkin	Distance education as a new form of education, emphasizing the independent learning of students, which enables dialogues between the student and the teacher through telecommunication tools at any given time	
Karpenko T.E., Seri L.T.	Distance learning as an element of open education, catering to learners who are unable to attend physical classes for various reasons. These learners work from home or office, engage in self-study of e-courses, complete assignments, and interact with peers and teachers through the Internet. In essence, they assume responsibility for autonomous learning	
Ignatovich T.V.	Distance learning is a form of learning, and e-learning serves as the digital technology and telecommunication system through which this form of learning is implemented within a virtual environment	

Khmel O.V.	Distance learning as a purposeful process that involves the interaction of all education participants, including teachers and students, throughout the stages of education, regardless of their physical presence in time and space. It relies on a wide range of traditional and ICT tools	

Overall, these definitions highlight the purposeful organization of distance learning, the separation of learners and teachers in space, the utilization of technology for communication and learning, the emphasis on independent learning, and the flexibility provided by digital tools and virtual environments.

Materials and methods. D.D. Dzhantasova (2010) defines distance learning as an educational methodology founded upon a paradigm that fosters indirect interactive engagement between educators and learners. This is achieved through the purposeful integration of contemporary information and communication technologies. The author astutely recognizes the existence of diverse models of distance learning through her scholarly inquiry. Particularly noteworthy is her observation of three distinct models of distance learning prevalent in Western developed nations.

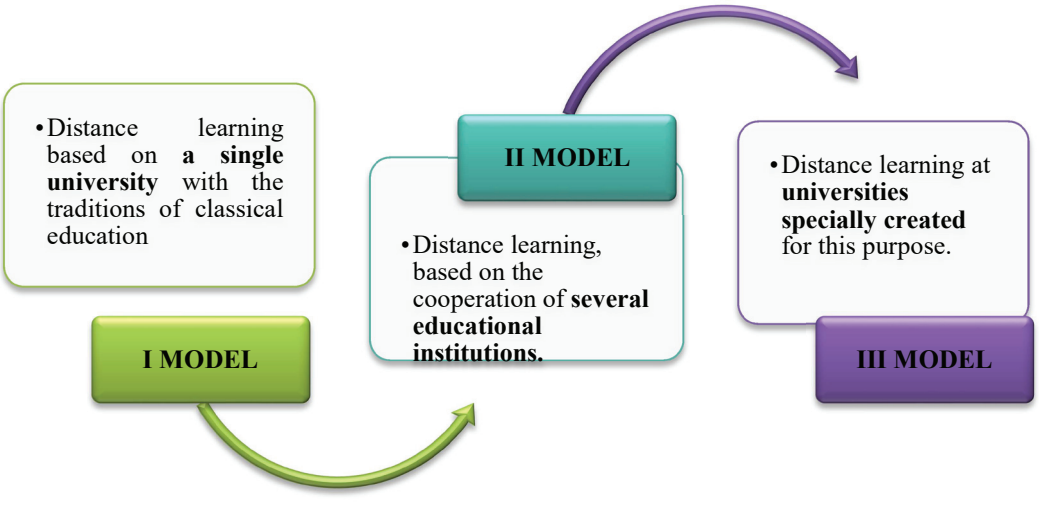

Figure 3. Distance learning models

The first model , characterized as distance learning rooted in a single university steeped in classical educational traditions, represents a framework where academic institutions possess an abundance of intellectual resources and pedagogical expertise. This wealth enables them to meticulously craft and deliver pedagogically valuable courses spanning diverse fields of knowledge. This is accomplished through the astute application of modern information and communication technologies (ICT), including multimedia and hypermedia. In this model, pedagogy predominantly hinges on case-based teaching methods, encompassing printed manuals, audio and video cassettes, as well as telecommunication technologies. Renowned institutions such as Oxford, Cambridge (England), Sheffield (Scotland), Baltic (Sweden), and Open University (Turkey) exemplify the adoption of this approach to distance learning.

The second model manifests as a collaborative endeavor, where multiple educational institutions join forces to design, create, and implement distance learning courses. This collaborative synergy not only augments pedagogical efficacy but also yields cost reductions in the development of such courses. Collaborative initiatives can transpire both at a national and international scale. Notable instances of this model encompass the Northern Colleges of England, an alliance of nine traditional

Australian universities renowned for open learning, and the Baltic University in Sweden, which unites over fifty universities within the Baltic region in a concerted effort.

The third model revolves around institutions purposefully established to champion distance learning. These universities place a premium on cultivating active and self-directed student involvement. Learning methodologies encompass an array of resources, including textbooks, specialized literature, audio and video tapes, and computerized course materials. Crucially, computer teleconferences feature prominently within the pedagogical landscape. Eminent examples of this model's implementation encompass the Open University in Great Britain, the Spanish National University of Distance Learning, and the Dutch Open University, all of which exemplify an unwavering commitment to this form of distance learning organization.

According to G.S. Dzhuzbaeva (2010), distance learning can be defined as an educational approach that utilizes scientifically grounded methods, supported by information, computer, and telecommunication tools. The term "distance education" refers to the dissemination of specialized educational content to the masses, utilizing satellite television or radio, computer telecommunications, and other communication media. The author's definition emphasizes the cognitive activities conducted within specialized educational environments, wherein information is exchanged mutually for the purpose of cognitive learning (Dzhuzbaeva, 2010). In the author's work, the organizational and methodological framework of distance learning is presented through four subsystems (refer to Figure 4).

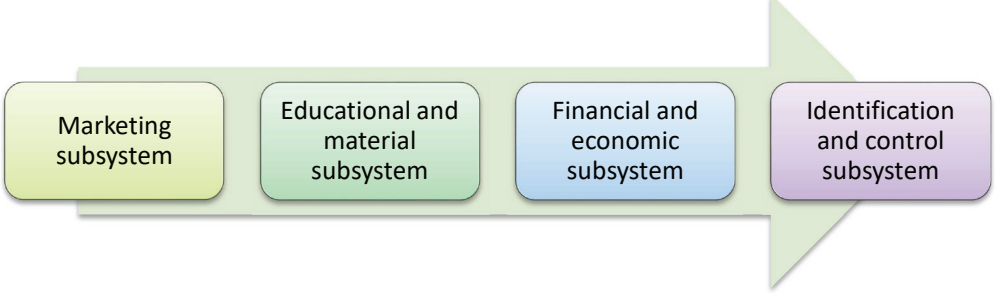

Figure 4. The system that forms the organizational and methodological basis of distance learning according to G.S. Dzhuzbaeva (2010)

In his research, B.J. Nurbekov (2010) conducted an analysis of the theoretical and methodological foundations of distance learning (DL), leading to the identification of various development trends. These include: focusing on DL expansion, focusing on DL internationalization, focusing on transformation of key DL concepts, personality oriented DL, innovative development of DL, integration of information and communication technologies (ICT) and pedagogical technologies, as well as the integration of verbal, visual, and modular thinking. These trends highlight the evolving nature of distance learning, emphasizing the importance of adapting to new technologies and pedagogical approaches to enhance the educational experience.

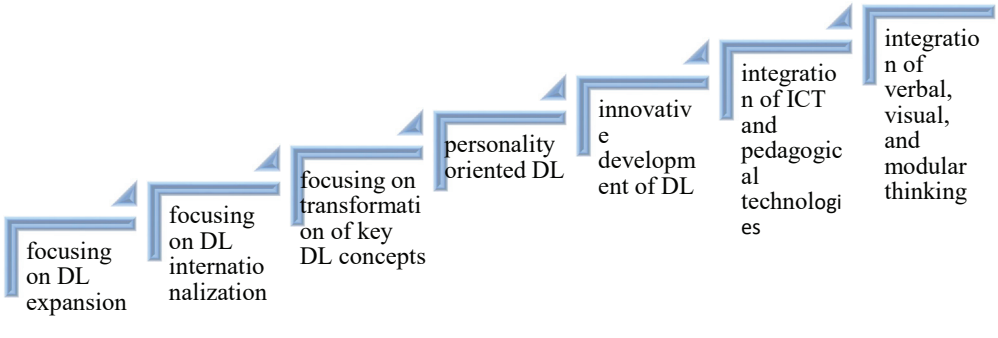

Figure 5. According to B.J. Nurbekov (2010), trends in the development of distance learning

Based on the works of B.J. Nurbekov (2010) and G.S. Zhuzbaeva (2010), we can classify the advantages and disadvantages of distance learning as follows:

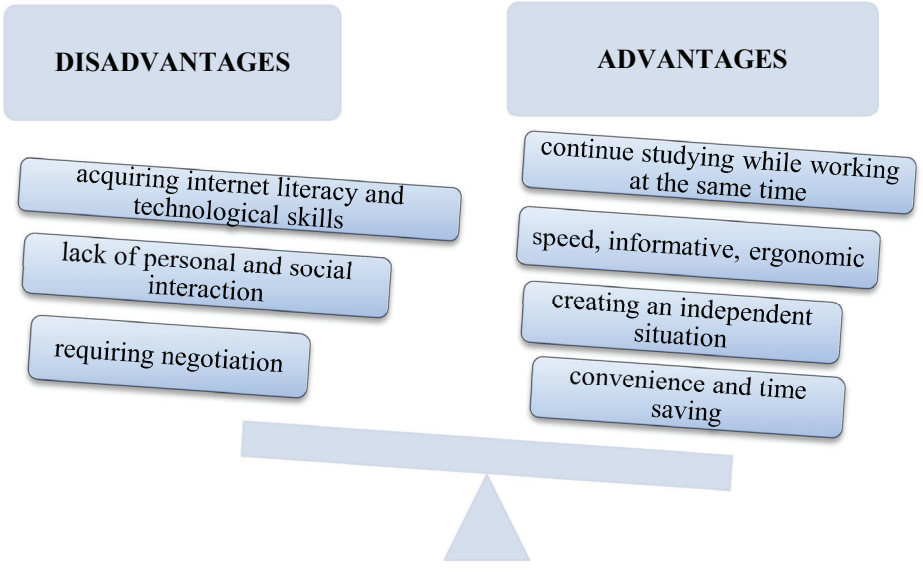

Figure 6. Advantages and disadvantages of distance learning according to B.J. Nurbekov (2010), G.S. Dzhuzbaeva (2010)

Results and discussion. In addition to the aforementioned perspectives, foreign scholars, including De Paepe et al. (2018), have highlighted the advantages and disadvantages of distance learning in their research. Advantages of distance learning, as identified by these scholars, encompass the following: self-learning, flexibility in time and space, time-saving, cost-effectiveness.

However, the scholars also shed light on the disadvantages of distance learning, including: feelings of isolation, struggle to stay motivated, lack of personal interaction, difficulty getting immediate feedback, need for constant and reliable access to technology, and sometimes some difficulty with accreditation.

It is essential to consider these advantages and disadvantages when evaluating the suitability and effectiveness of distance learning approaches. Additionally, the specific circumstances and context in which distance learning is implemented can influence the extent and significance of these advantages and disadvantages.

An important contribution to the field of our research comes from T.Yu. Andreyeva (2012), who, in her doctoral thesis titled "Preparation of future teachers of foreign languages for the organization of distance learning," explores various aspects of distance learning in the context of foreign language education. The author delves into the content, methods, organizational forms, and tools employed in distance learning, with a particular focus on addressing language-specific tasks such as lexical, phonetic, grammatical, and communicative skills encompassing reading, speaking, writing, and listening (Andreyeva, 2012)).

Drawing from her research findings, T.Yu. Andreyeva (2012) proposes pedagogical conditions that can effectively prepare future foreign language teachers for distance learning in educational institutions. These conditions include:

1) Professional orientation: Ensuring that students receive appropriate training in information cycle subjects that align with their professional goals as language educators.

2) Integration of a specialized course: Incorporating a dedicated course, such as "Practice of Distance Learning in the Moodle Environment," into the curriculum. This course would employ a modular approach, presenting preparatory content in accordance with the key components of foreign language teaching.

3) Practical activities: Facilitating practical exercises for students to create interactive distance learning courses tailored to educational objectives.

4) Teacher training: Equipping foreign language teachers with the necessary skills to work in an information-educational environment that supports distance learning.

The conclusions drawn from Andreyeva's work emphasize the effectiveness of incorporating distance learning into the professional training of future foreign language teachers. Therefore, the pedagogical conditions proposed by the author hold significant relevance and applicability to our own research objectives.

Furthermore, G.G. Blokhovtsova et al. (2016) examines the perspectives of distance learning development and proposes various types of distance learning lessons. These lessons are depicted graphically in Figure 7.

Figure 7. Types of lessons on distance learning proposed by G.G. Blokhovtsova (2016)

Chat-lessons: These lessons are conducted synchronously, allowing all participants to access the chat simultaneously. Through this format, real-time interaction and discussion among students and instructors are facilitated.

Web-based classes: This category encompasses a wide range of educational activities such as classes, conferences, seminars, business games, laboratory work, and practical sessions. These classes are conducted using the Internet and other telecommunication tools, enabling remote participation and collaboration.

Teleconferences: Teleconferences involve the convening of participants through remote telecommunication devices. This format facilitates meetings, discussions, and knowledge-sharing among individuals who are physically separated but connected virtually (Blokhovtsova & Volohatyh, 2016)

These classifications provided by Blokhovtsova & Volohatyh (2016) offer valuable insights into the diverse formats and modalities of distance learning, enabling educators and institutions to choose appropriate methods based on their specific educational goals and requirements.

Research conducted by A.B. Adranova (2020) focuses on methods for ensuring information security in distance education. The author highlights the importance of distance learning as a key pillar, emphasizing the need for high-quality and efficient processing of information flows within higher education institutions. Additionally, A.B. Adranova (2020) emphasizes the significance of maintaining a continuous and stable cycle of distance learning work while safeguarding the confidentiality of personal information for both teachers and students. The research also presents the structural elements within the distance learning system, including external information sources, individuals and legal entities, international relations, and information funds, among others.

Mailybayeva et al. (2021) identify several organizational and pedagogical conditions that contribute to effective work in the distance learning system. In particular:

The first condition - the introduction of general training and vocational orientation, vocational-specialized courses into educational programs or additional educational programs of teachers in professional development courses;

The second condition – the utilization of modular-rating and distance learning technologies;

The third condition – the organization of independent work within the electronic information-educational environment;

The fourth condition – the inclusion of learners in distance learning activities while fostering an understanding of potential challenges that arise in this mode of education (Mailybayeva, 2021).

Conclusion. The COVID-19 pandemic has posed unprecedented challenges for the education system worldwide, prompting a shift away from traditional in-person schooling. Analysis of the literature let us highlight the difficulties encountered during the pandemic-related transition to distance learning, including inadequate access to computers and equipment among families with school-aged children, challenges with information accuracy and

usability on educational platforms, increased technological learning curve for older teachers, reduced objectivity in assessing students' knowledge, decreased student motivation, and the emergence of paid subscriptions for teachers on certain platforms supporting distance learning.

These findings shed light on the multifaceted nature of distance learning, underscoring the need for comprehensive approaches to ensure effective implementation and address the challenges faced by educators, students, and institutions in adapting to this new educational landscape.

In conclusion, based on the aforementioned discussion, it is evident that the issue of distance learning in the context of formation of professional competences of future foreign language teachers necessitates further investigation. Successful organization of distance learning hinges upon several crucial factors, including the appropriate selection of methods and models, the exploration of innovative conceptual approaches to information technology integration in education, and the comprehensive training and retraining of foreign language teachers who are equipped to facilitate distance learning effectively. Furthermore, there is a growing need to harness the potential of modern web technologies and online tools in order to enhance the overall educational experience. It is imperative to address these considerations to ensure the optimal implementation of distance learning in the training of future foreign language educators. Further research in this area will contribute to a deeper understanding and improved practices in the field of distance learning for language teaching.

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ASSESSING EDUCATIONAL ENVIRONMENTS USING SACERS INTERNATIONAL SCALES: A BIBLIOMETRIC PERSPECTIVE

Abstract

To establish optimal conditions for school-age learners' best educational outcomes, research-evidenced documentation is a requirement prior to any significant change. This bibliometric analysis investigated articles published on School-Age Care Environment Rating Scale (SACERS) from 2017 to 2023 (n=10). Data collection involved identification, screening, exclusion, and eligibility stages. The bibliometrics R-package was used for data analysis on the Bibliometric cloud-based platform, focusing on publication patterns, citation networks, and bibliographic insights. Key findings indicate limited research-related publications on SACERS, possibly due to country-specific adaptations and variants in local languages. The scientific production varied annually, with few publications during 2017-2023. Canada, Russia, and the USA led SACERS research, implementing changes based on findings in target educational institutions. It was also found that research publications imply a university's intellectual and epistemological contribution; this also offers insights for academic institutions to enhance research strategies and academic influence. Based on these findings, we concluded that SACERS is an invaluable tool for globally evaluating educational environments. Its comprehensive assessment empowers educators to foster enriching learning environments for all students.

Keywords: SACERS scale, assessment, school-age children, bibliometrics, educational conditions.

Introduction. In an increasingly interconnected world, the quality of educational environments has become a subject of global significance (Care et al., 2016). Educational settings during early childhood and school-age years play a pivotal role (Baeten et al., 2013) in shaping the foundation of learning and development. A significant challenge in contemporary society is the need to ensure equal educational opportunities for all students. Educational institutions are expected to establish optimal conditions, encompassing material, technical, informational, methodological, psychological, pedagogical, staffing, financial, and economic aspects, to achieve the best educational outcomes. These conditions not only

refer to the resources required for implementing educational programs but also impact the potential for supporting and enhancing the existing level of education. Addressing the issue of providing equal access to quality education involves reevaluating educational content and assessment procedures, taking socioeconomic factors into account, and improving the efficiency of both administrative and pedagogical actions (Marfan et al., 2018). This necessitates a thorough examination of school structures and the overall learning environment (Begimbetova et al., 2023).

In the pursuit of providing quality education to learners across the globe, the assessment of educational environments has emerged as an essential endeavor (Xiong et al., 2017). By understanding and evaluating the factors that influence the learning process, educational stakeholders and educators can make informed decisions to enhance the overall educational experience. This assessment goes beyond traditional academic achievement and encompasses various aspects, such as the physical setting, teacher-student interactions, and curriculum effectiveness. Several international studies have illustrated the transformative impact of the School-Age Care Environment Rating Scale, hereafter referred to as SACERS, on educational practices (Shmis et al., 2019). Research findings by Kwon and Park (2020) highlighted the fact that the implementation of the scales in diverse countries led to targeted improvements in educational environments and teaching methodologies. By conducting a systematic evaluation of educational environments, we gain valuable insights into the strengths and weaknesses aspects for improvement in the educational landscape worldwide (Ndukwe et al., 2020).

Main part. The SACERS international scales have become a prominent instrument in evaluating educational environments on a global scale. Developed as an observation-based assessment tool, SACERS offers a comprehensive framework to measure the quality of educational settings for school-age children. Its application spans preschool to secondary school levels and enables educators and researchers to assess the effectiveness of various educational programs. As an internationally recognized standard, the SACERS provide a common language for comparing and improving educational practices worldwide, promoting a shared understanding of what constitutes an enriching and conducive learning environment.

SACERS Comprehensive Assessment: The Seven Scales School-Age Learners' Needs

The SACERS is based on criteria that emphasize the development of school-age learners and meet their developmental needs within the school environment. The methodology of SACERS consists of seven scales as Fig. 1 illustrates it:

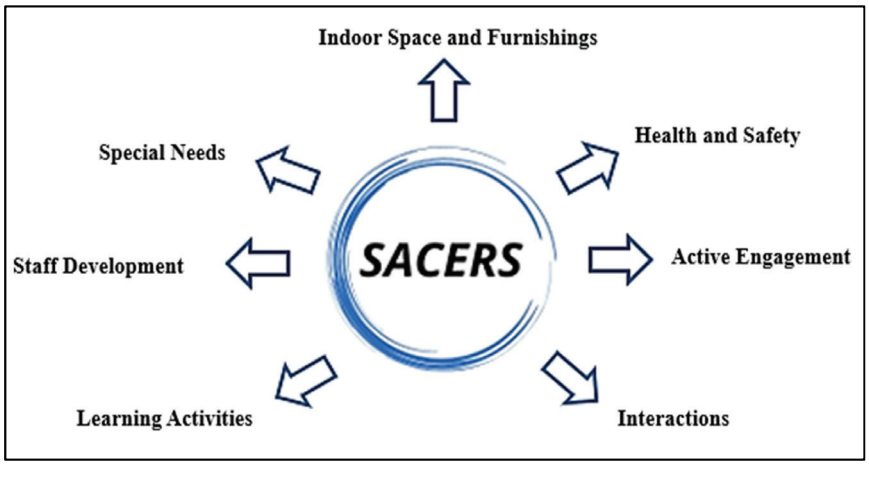

Figure 1. SACERS seven scale

1. Indoor Space and Furnishings:

• Assesses interior space, room layout, open areas for physical activities, and solitude.

• Evaluates whether there is even availability of staff rooms and furniture for educational and relaxation purposes.

2. Health and Safety:

• Measures the educational environment's health and safety aspects

• Does reviews about food catering organizations affiliate to schools; it also considers other safety-related aspects.

3. Active Engagement/Time-Use:

• Assesses how organized are the extracurricular and educational activities.

• This measure expands on aspects of arts and crafts, music and dance, drama, science, and research activities observed in schools.

4. Interactions:

• Collects data related to interactions and communication within various systems in the educational institutions (learner-teacher, learner-learner, teacher-teacher, and teacher-parent).

5. Learning Activities:

• Measures aspects related to schedules, daily routines, and supplementary educational programs.

• Observes the existence or non-existence of learning activities variability versus monotony.

6. Staff Development:

• Concentrates on the indicators of teacher activities and opportunities for professional development.

7. Special Needs:

• Assesses if there is the provision of conditions for interaction and learning for students with special needs/disabilities (Ivanova E.V. et al, 2019; Vladimirovna et al., 2019; Ivanova et al., 2018).

These scales are detailed in 48 indicators, each of which is rated on a 7-point scale: 1 point - inadequate; 3 points - minimal; 5 points - good; 7 points - excellent; 2, 4, 6 - intermediate scores. Quality levels corresponding to 1, 3, 5, and 7 points are specified as separate indicators. An indicator refers to a description of observed actions or objects. Advantages of the educational environment assessment tool (SACERS).

support in developing an educational environment that takes into account the unique learning paths of all students...

help in adapting the curriculum, teaching methods, assignments, and more, for universal use by all individuals involved in education without additional time or financial investments...

assistance in empowering educators to meet the needs of students - universal design promotes a more flexible curriculum, while assistive technologies provide physical adaptations, devices, and tools to enhance opportunities for students with specific requirements.

The purpose of the study. In this article, the researchers aim to conduct a bibliometric analysis to explore the research landscape surrounding the assessment of educational environments using SACERS Scales.

The importance of the article - The focus here is to delve into the scholarly output produced by researchers and authors worldwide, uncovering then their contributions to the field of educational environment assessment. By utilizing bibliometric techniques, the authors seek to identify trends, patterns, and collaborations among authors, institutions, and countries involved in research related to SACERS. This bibliometric analysis helps us to gain a comprehensive understanding of the global research efforts and the impact of SACERS in shaping educational practices and policies worldwide.

Materials and methods. This research is a bibliometric analysis (Donthu et al., 2021) primarily analyzing scholarly outputs related to the assessment of educational environments using SACERS Scales. To analyze data, the bibliometric R-package was used and it helped to perform the bibliometric analyses on the Bibliometric cloud-based platform (Begimbetova ey al., 2023). The outputs of interest were publication patterns, citation networks, and other bibliographic information to gain insights into the structure and impact of academic literature in a particular field.

The R Program package used:

```
#To run BiblioShiny
library(bibliometrix)
biblioshiny()
```

The databases consulted for articles collection include Dimension, Education Database, ERC, ERIC, Scopus, Web of Science, and Google Scholar) with the keywords like "SACERS", "school environment assessment", and "school age care environment rating scale". The Boolean operator was AND as in "school AND age AND care AND environment AND rating AND scale." The same was for other keywords used in the databases during the identification stage (Fig. 2).

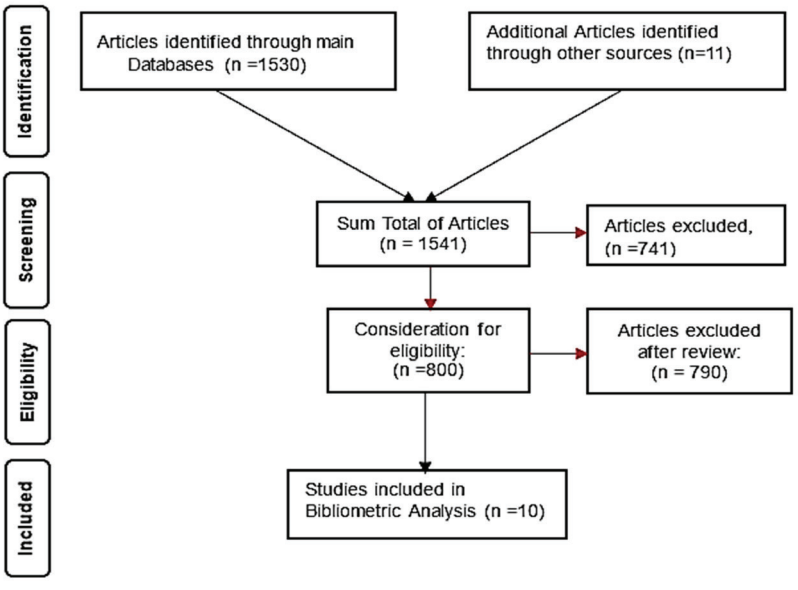

Figure 2. Chart flow source (adapted from Schaller & Vatananan-Thesenvitz, 2019)

Results and discussion. Based on Figure 1, this study covers the period from 2017 to 2023 and involved 21 authors conducting research on the SACERS scale using 40-related keywords. The research analysed 10 articles from various sources, including books and journals, selected based on their discussion of SACERS fields or aspects. Among the 10 articles analysed, 4 were single-authored works (Fig. 3).

Figure 3. The visualization of the main information

The study referenced 401 sources, with an average document age of 3.5 years. The average number of co-authors per article was 2.4, suggesting significant collaboration among researchers. The research achieved an average of 10 citations per article, indicating that it was highly regarded by other scholars in the field.

So, as one can see numbers talk of themselves. The SACERS research-related publications are limited. One of the reasons is that individual countries may have adapted it to their own needs and created variants. Two publications were found in the German language about the *"Hort- und Ganztagsangebote-Skala: (HUGS)*", a variant of SACERS in Germany. What is important is that those German authors admit that SACERS or HUGS is a great tool with high potential that can guide or document practical suggestions for educational change.

Annual Scientific Production around the "SACERS" Keyword

The annual scientific production in areas related to the SACERS scale can be seen in the plot below (Fig. 4):

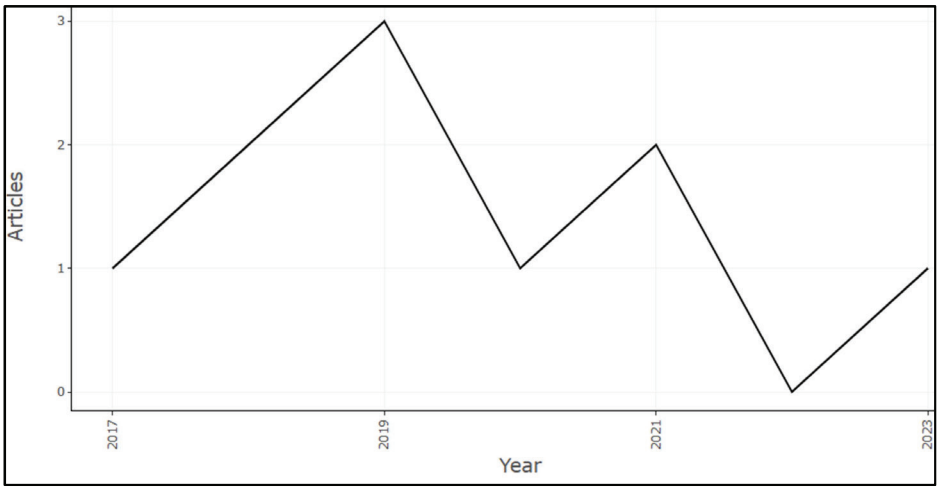

Figure 4. Published articles each year from 2017 to 2023

The annual scientific production of the institution varied over the years. It started with 1 article in 2017, increased to 3 articles in 2019, and saw a dip in 2020 with 1 article. The following years had 2 articles in 2021, none in 2022, and 1 article in 2023.

Three-field Plot (Sankey diagram)

The authors of the School-Age Care Environment Rating Scale (SACERS) drew insights from diverse sources to create a comprehensive rating system for school-age childcare programs. The SACERS scales have been adopted in numerous countries, including Germany, the United States, Sweden, Russia, and more, highly regarded as a valid, dependable, and trustworthy means of evaluating the educational environment. In Russia, they can be juxtaposed with the scale with another meant for preschool infants, the ECERS-R (Early Children Education Rating Scale), which becomes an even more comprehensive and complete measurement combination if well-applied (Fig. 5).

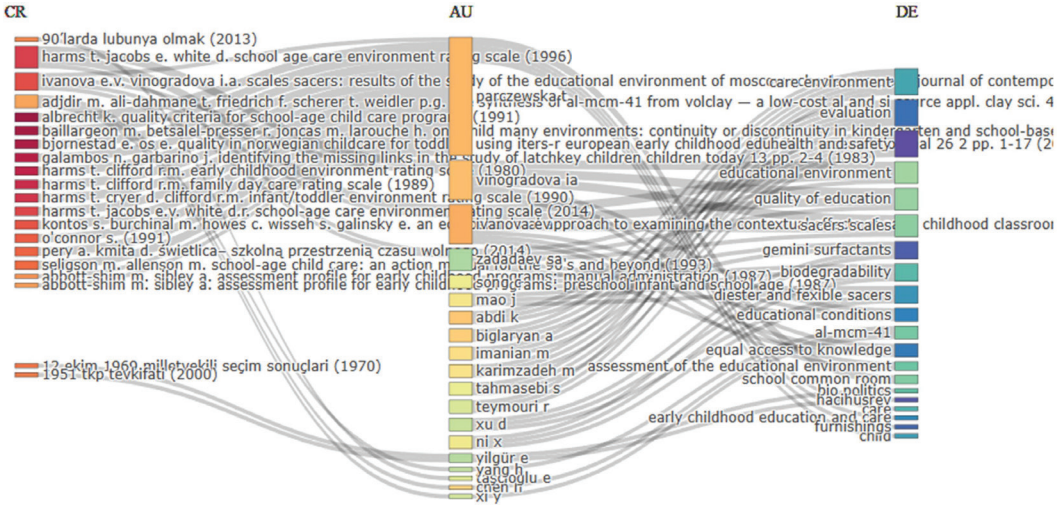

Figure 5. Three-field Plot (Sankey diagram)

The ECERS-R and SACERS scales collectively serve as a comprehensive set of instruments for evaluating the quality of education, across early childhood, elementary, and basic general education levels. SACERS is not based on a specific program philosophy but is rooted in the developmental appropriateness for school-age children. Quality definitions, such as the Quality Criteria for School-Age Child Care Programs Manning (Manning et al., 2017) and existing instruments like Assessing School-Age Child Care Quality (ASQ). In the countries

spotted, the SACERS-related research findings were reported to have served a good course in the decision-making process for Canadian, Russian, and United States educational institutions (Parczewska et al., 2017). In other studies, such SACERS scales were adapted to local contexts to ensure they aligned with the countries' developmental needs of school-age children.

The provided data represents a network graph with nodes and their corresponding attributes in different clusters. Each node has information on its cluster, between ness centrality, closeness centrality, and PageRank (Fig. 6).

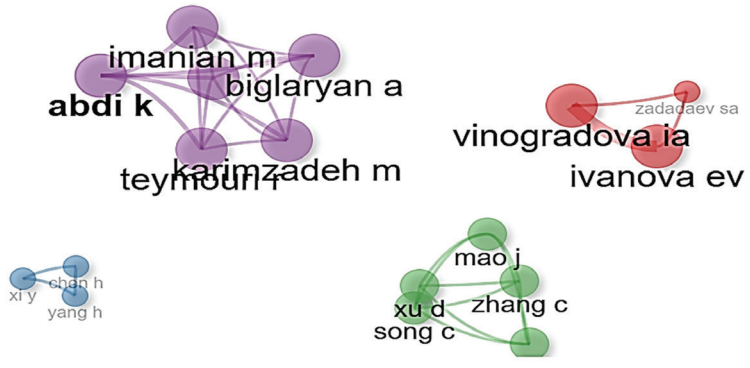

Figure 6. Collaboration network

Clusters are sorted according to their PageRank index values. Cluster 1 consists of nodes Ivanova E, Vinogradova I, and Zadadaev S, all having a betweenness centrality, closeness centrality, and PageRank value of 0.5, suggesting their importance in the network and overall scholarly contribution in around the SACERS keyword. Equally, Cluster 2 is second to Cluster 1 and it contains nodes that include Mao J, Ni X, Song C, Xu D, and Zhang C, with a betweenness centrality of 0 and a closeness centrality and PageRank value of 0.25. In the third position comes Cluster 3; it consists of nodes Abdi K, Biglaryan A, Imanian M, Karimzadeh M, Tahmasebi S, and Teymouri R, with a betweenness centrality of 0 and a closeness centrality and PageRank value of 0.2. Note cluster has no PageRank index value. Since centrality refers to how important a given node (keyword or concept) is within a particular network, the bigger the betweenness centrality, closeness centrality, and PageRank values, the higher the contribution of that particular network.

As far as authors' affiliations are concerned, in this ever-evolving landscape of academia, research publications stand as crucial indicators of a university's intellectual prowess and commitment to advancing the epistemological agenda. In this article, the affiliation-related finding is that there are four prominent universities whose staff contributed enormously to SACERS scales. These are the Anhui Science and Technology University, Moscow City University, Central South University, and the University of Social Welfare and Rehabilitation Sciences. This is mainly indicated by the scholarly output and research productivity of these institutions for the period of interest in this article which is from 2017 to 2023; Fig. 7 illustrates the scientific outputs perceived in the angles of the institutions affiliated with prominent SACERS scales authors.

Anhui Science and Technology University maintained a consistent level of research productivity, publishing five articles annually from 2017 to 2023. Moscow City University, on the other hand, showed a consistent yet stagnant trend, with only two articles published each year from 2018 to 2023. Central South University demonstrated positive growth in research output, progressing from no publications in 2017 and 2018 to two articles annually in 2019-2023. Notably, the University of Social Welfare and Rehabilitation Sciences exhibited steady and remarkable growth, publishing six articles per year from 2019 to 2023. By analyzing these numbers, we seek to uncover insights into the research culture and academic impact of these institutions, laying the foundation for future discussions on enhancing research excellence in higher education.

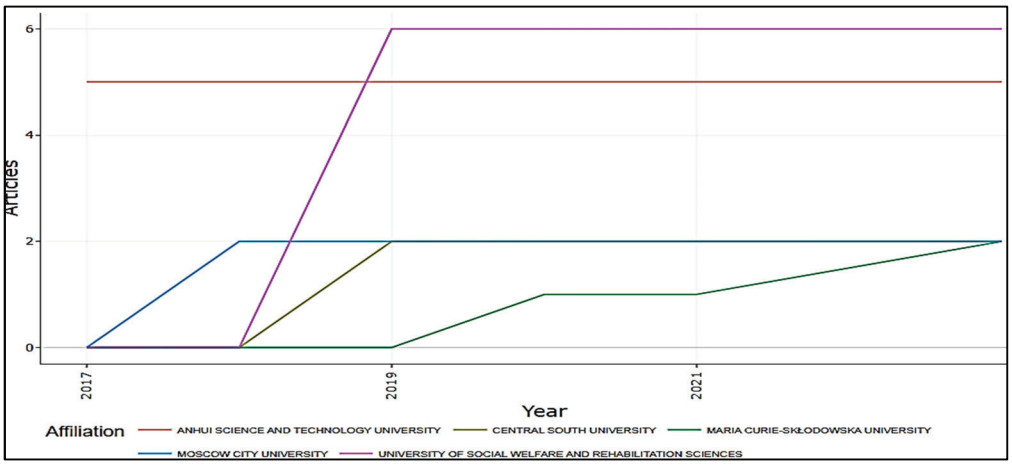

Figure 7. Affiliations' Production over Time

Over the span of seven years (2017-2023), the research productivity and total citations per article of the academic institution under study displayed varying trends. In 2017, a single article garnered an impressive average of 53 total citations, showcasing the institution's capacity for impactful research. However, 2018 witnessed a decline in average total citations per article (1.5), despite an increase in the number of published articles (two). The year 2019 exhibited improved research output with three articles, averaging 13.67 total citations per article and sustaining academic impact for an average of 2.73 years. In contrast, 2020 and 2021 demonstrated relatively lower research productivity, each having one and two articles published, respectively (Table 1).

Table *1. Average Citations Per Year*

Year	MeanTCperArt	N	MeanTCperYear	CitableYears
2017	53	1.00	7.57	7
2018	1.5	2.00	0.25	6
2019	13.67	3.00	2.73	5
2020	0	1.00	0.00	4
2021	1.5	2.00	0.50	3
2023	0	1.00	0.00	1

Both years recorded minimal average total citations per article, with shorter citable durations. As the data only extends to 2023, the most recent year showed a single article without any citations, leaving its potential impact open for future evaluation. Understanding these trends can aid the institution in enhancing its research strategies and fostering long-term academic influence (Kenzhaliyev et al., 2021; Kassymova et al., 2021; Abutalip et al., 2023).

Conclusion. To sum up, the SACERS research-related publications are limited and one of the reasons is that individual countries may have adapted it to their own needs and created variants in local language as well. In terms of annual scientific production, variation of trends is traceable: few SACERS-related publications appeared between 2017 and 2023. But back in 1999, a few articles in English and non-international languages were screened.

The countries that spearheaded the research around SACERS are Canada, Russia, and the US; in these countries, changes were operated following the SACERS research findings in target educational institutions. Equally, individual authors who contributed to this field ensured their affiliated institution's scholarly visibility.

As a matter of fact, it was also noted that research publications stand as crucial indicators of a university's intellectual and epistemological contribution, breaking then the frontiers of the 'unknown". Whether academic institutional leaders are aware or not of it, the impact they have in the world of knowledge is collected in the collective mind: their research culture and academic impact can be screened and interpreted. Understanding these trends can aid the institution in enhancing its research strategies and fostering long-term academic influence.

So, the School-Age Care Environment Rating Scale (SACERS) is a valuable and effective tool for evaluating educational environments globally. The comprehensive assessment provided by SACERS, covering various aspects such as indoor space, interactions, and learning activities, empowers educators to create conducive and enriching learning environments for all students.

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FORMATION OF CRITICAL THINKING OF PRIMARY SCHOOL STUDENTS THROUGH AN EFFECTIVE SURVEY

Abstract

The article deals with the problem of the formation of critical thinking in primary schoolchildren through a judicious application of effective inquiry techniques. To determine the relevance of the topic, the concept of the development of education and science and the State Mandatory Standard of Primary Education are analyzed.

A review of the research of domestic and foreign scientists who studied the concept of "critical thinking" is presented. It is confirmed that this is one of the skills that allows the student to develop freely in the educational space.

Since the object of the study was primary school students, experimental work was carried out with students. Three stages of the experiment have been implemented. Tasks aimed at forming students' critical thinking at the formative stage are developed based on the educational goals of the 4th-grade curriculum. The effectiveness of the developed tasks aimed at the problem of research has been proved in the course of experimental research.

As a result of the use of pedagogical technology for the development of critical thinking, students make mistakes at the first stage, freely express their thoughts without fear of teacher correction; update their knowledge and experience; solve large-scale problems on the topic, make common decisions; at the second stage, they understand the content of new information, compare existing knowledge and experience, pose questions aimed at finding effective and solvable ways, express their own opinion about new information, argue their positions; at the third stage, the ability to independently determine tasks, make forecasts, and make decisions develops.

Keywords: critical thinking, technology, primary class, effective question, decision-making, analysis, comparison, reflection, experiments.

Introduction. Central to our educational objectives is the cultivation of a student persona characterized by the cultivation of advanced critical thinking capabilities, an autonomous aptitude for information analysis, the generation of innovative ideas, a proclivity for pioneering endeavours, honed linguistic competencies, adept digital proficiency, and proficient research acumen within the academic framework. These objectives align seamlessly with the pivotal consideration of enhancing the intellectual reservoir of academia, as expounded in Section 2 of the concept for the development of Higher Education and Science in the Republic of Kazakhstan 2023-2029". Consequently, the imperative emerges to foster tailored proficiencies and aptitudes that drive intellectual advancement.

In this context, the comprehensive obligatory educational framework of primary education stipulates that the mastery of critical thinking skills occupies a seminal position in facilitating unhampered scholastic growth. Thus, within the pedagogical milieu, an imperative arises to construct scenarios conducive to deliberate decision-making, individualized research initiatives, analytical contemplation, and the substantiation of viewpoints. Collaborative endeavours in this vein stand to yield elevated outcomes, given the contemporary educational landscape's demand for the cultivation of cogitative scholars (Sormunen et al., 2023). Indeed, the endeavour to mould a student endowed with the capacity for incisive thought represents an ongoing and multifaceted undertaking within the modern educational milieu.

While there exists a corpus of research addressing the advancement of critical thinking within domestic academic discourse, its extensiveness remains limited. For instance, Kelgembaeva et al., (2023) probed the integration of critical thinking methodologies into secondary-level subject instruction, Bekbaeva (2021) elucidated pathways for instilling critical thinking in students, Seitkazy et al., (2016) delved into the scientific underpinning of utilizing media resources for cognitive development, and Iskakova (2022) explored the enhancement of primary school educators' intellectual capacities through critical thinking paradigms. Further, Taybolatov (2022) introduced an adaptive curriculum aimed at nurturing critical thinking within general secondary education. Zair-Bek & Mushtavinskaya (2011) delved into contemporary pedagogical techniques fostering critical thinking within the learning milieu. Complementary to this, Tikhonova (2017) a Russian scholar, investigated the nexus between critical thinking and the cultivation of leadership qualities, a facet also explored by the American psychologist (Halpern 2000).

Additionally, international scholarship on the topic was exhaustively investigated. The works of Silva et al., (2023) as well as the comprehensive insights presented by Wijnen et al., (2023).

Recognizing critical thinking, creative ideation, problem-solving acumen, and analogous higher-order cognitive proficiencies as integral components of holistic student maturation, extant research underscores the potential of technology as a catalyst for stimulating advanced thinking capabilities (Alade & Kuku 2022). Nonetheless, a conspicuous discrepancy persists wherein educators, for the most part, do not fully harness novel technological tools to invigorate higher-order cognitive engagement (Agbo et al., 2023). To address this lacuna and augment pedagogical practice, it is imperative to gain an informed understanding of educators' attitudes toward the incorporation of novel technologies to foster and amplify higher-order cognitive thinking within the educational milieu.

Purpose of study. In a broader context, it is evident that the examination of critical thinking skills finds its prominence within the investigations of psychologists, pedagogues, and methodologists. Aligned with the evolution of the educational framework, these inquiries undergo a process of systematic categorization and adaptation.

Literature review. The pertinence of the conceptual framework and standards pertinent to the cultivation of critical thinking among primary school students facilitated through efficacious inquiry-based approaches, was substantiated (Gómez & Suárez 2020). In pursuit of this, a comprehensive theoretical examination of both domestic and international scholarly contributions was undertaken. The investigations conducted by domestic scholars were meticulously scrutinized, employing methods encompassing data collection, comparative analysis, and systematic categorization.

Bekbaeva & Asaubaeva (2013) in their research, expounds on critical thinking as the faculty to dissect, amalgamate, and assess information, thereby endowing the individual with the ability to gauge its authenticity and pertinence. This cognitive process, as delineated by the scholars, empowers individuals to not only formulate their viewpoints but also to forge concepts and convictions. The concept of evaluation-reflective thinking, as postulated by their engenders, is prudent decision-making grounded in pre-existing knowledge (factual data). To inculcate such a cognitive faculty, Bekbaeva & Asaubaeva (2013), and Du et al., (2022) advocate the orchestration of

unconventional tasks and investigative ventures that necessitate distinct decision-making and imaginative competencies, thereby culminating in the cultivation of critical thinking.

Of particular interest is Kelgembaeva et al.'s, (2023) discourse on the integration of critical thinking technologies within subject pedagogy. Kelgembaeva et al., (2023) posit critical thinking as a pedagogical modality that endeavors to elevate educational content to a level where students can engage with information critically and autonomously, eschewing traditional didactic and reproductive-explanatory methodologies. This instructional approach involves discerning innovative thoughts and ideas within artistic creations, thus engendering critical thinking application in curriculum planning (Egana-delSol 2023; Abrahams et al., 2021). The methodological orientation emphasizes opinion articulation and its subsequent analysis, event, and character comparisons, and the execution of tasks aimed at elucidating the motivations behind revisions and improvements.

The scholars Iskakova & Esmuratova (2021) unveil a multifaceted facet of critical thinking, denoting it as an intricate process culminating in the amalgamation of ideas about a specific quandary and culminating in decision-making. Iskakova & Esmuratova (2021) further asserts that this cognitive phenomenon entails the extraction of pertinent and indispensable knowledge from an array of dilemmas and resolutions, while simultaneously discerning novel insights from pre-existing wisdom. Such an ability is pivotal in guiding the quest for solutions (Iskakova, & Esmuratova 2021).

In the exploration conducted by Kubrushko & Bekbaeva (2023), the spotlight is cast upon the orchestration of innovative pursuits that foster critical thinking acumen. The authors proffer inquiries tailored for university educators, aimed at gauging their receptiveness to educational technologies conducive to critical thinking development. Through their study, they discern a predilection among instructors for methodological guidance. As a consequence, the research advocates an enriched comprehension of students' critical thinking in both theoretical and practical dimensions, along with the systematic integration of critical thinking principles and technological knowledge. This initiative culminated in the introduction of a specialized module titled "Technology of Utilizing Critical Thinking Strategies in the Learning Process." The aforementioned insights are poised to be instrumental in informing our practical approach as well.

Main part. Furthermore, it is prudent to delve into the perspectives of notable foreign scholars. In a comprehensive inquiry, Grau & Turula (2019) delved into the ramifications of employing lectures, collaborative learning modalities, and concept mapping techniques to foster the maturation of critical and creative thinking proficiencies. Through their meticulous investigation, they convincingly demonstrated that the amalgamation of diverse pedagogical approaches culminated in noteworthy outcomes, thereby substantiating the potency of integrated instructional methodologies. Consequently, we shall incorporate their valuable insights into our pragmatic selection of methods during the forthcoming pedagogical practice.

Similarly, the work of Wijnen et al., (2023) explored the dispositions of primary school educators towards the integration of emerging technologies to engender higher-order thinking capacities in students. Their findings underscored a prevailing tendency among teachers to underutilize novel technologies as catalysts for nurturing critical thinking. This observation underscores the imperative of fostering critical thinking skills within students and highlights the recognition of specialized pedagogical technologies as indispensable for their holistic development.

In alignment with this discourse, we intend to adopt the "Pedagogical Technology of Cultivating Critical Thinking through Reading and Writing," as conceptualized by Temple et al., (1998). This approach is intentionally designed to instil and refine critical thinking abilities within the educational milieu.

Furthermore, the approach of fostering critical thinking through questioning finds its roots in the philosophical inquiries of luminaries such as Socrates, Plato, and Aristotle. The "Socratic questioning" method, aptly attributed to Socrates, entails orchestrating discussions centred around strategically formulated queries to guide discourse toward specific objectives

(Kaldybekova et al., 2023). By adeptly posing discerning and impactful questions, we aim to foster a student persona characterized by an elevated realm of critical thinking.

Alice King's methodical utilization of tailored interrogations in dialogue with her students is equally illuminating (Turehanova & Abdrahmanova 2016). She posits that the capacity to pose reasoned and efficacious questions is a hallmark of well-developed cognitive faculties. This perspective aligns seamlessly with our aspiration to nurture students' adeptness in critical thinking, thereby fostering the ability to frame questions that are incisive, cogent, and purposeful.

Collectively, our exploration discerns that the notion of "critical thinking" is of multifaceted import, enlisting diverse conceptualizations across disparate domains of scholarly inquiry. The synthesis of these diverse perspectives substantiates the multi-dimensional nature of this seminal construct.

Materials and methods. *Participants.* In the pursuit of investigating the development of critical thinking skills among primary school students, our empirical study was conducted within the premises of School-Lyceum No. 23 named after Z. Kosmodemyanskaya. The experimental cohort comprised students from the 4 "V" and 4 "G" classes, with a total of 58 participants.

Data collection tool. The focal objective of this endeavour was to foster critical thinking acumen through the strategic deployment of effective questioning techniques. To operationalize our research pursuits, a series of tasks, meticulously tailored in alignment with the pedagogical objectives of the "Kazakh Language" curriculum, were introduced every week from January to March during the 2022-2023 academic year.

Data collection procedure. A preliminary stage of verification was instituted to establish a baseline for the participants' critical thinking proficiencies before engaging with the experimental interventions. This assessment phase encompassed the administration of a comprehensive questionnaire, the outcomes of which yielded discernible indicators indicative of the initial cognitive aptitudes of the students in both the experimental and control classes.

Results and discussion. The ensuing results, summarized in Table 1, serve as a substantive foundation for the subsequent analyses.

Table 1 - *Initial Critical Thinking Proficiency Assessment*

Levels	Control class n=28	Experimental class n=30
1	3	4
high	3,6% (1)	3,3% (1)
medium	35,7% (10)	30% (9)
low	60,7% (17)	66,7% (20)

A graphical representation of these findings is shown in Figure 1 below.

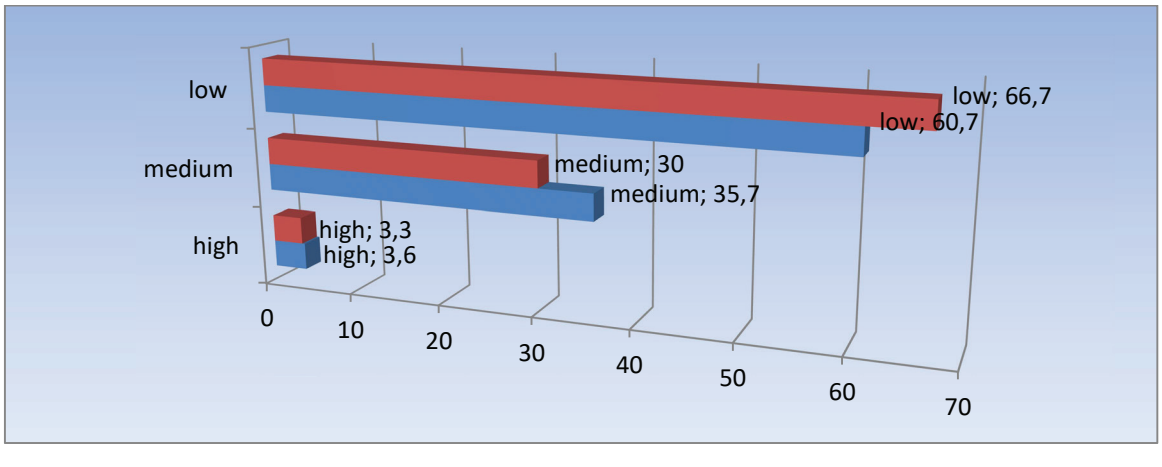

Figure 1 - Initial Critical Thinking Proficiency Assessment

During the meticulous scrutiny of the findings delineated in Table 1, a discernible trend emerges, indicating a notable deficiency in the critical thinking acumen of both participant classes. As such, it becomes imperative to employ the meticulously devised tasks within the instructional framework of the experimental group, thereby setting the stage to empirically substantiate their efficacy.

The formative stage entails the active formation of critical thinking prowess within the experimental class. To this end, we intend to adopt the pedagogical framework formulated by Temple et al. (1998); a multifaceted structure geared towards the cultivation of critical thinking through the nexus of reading and writing activities. The architecture of this pedagogical construct is meticulously structured across three distinct stages, each contributing substantively to the holistic development of critical thinking aptitude, as expounded in Table 2.

Table 2 - *Structure of critical thinking technology*

Stages	Description	Activity	Methods
1	2	3	4
I Stage	*Initial knowledge:* Cultivation of curiosity and self-directed learning inclinations; setting personalized learning objectives;	Encouragement towards engagement with novel information, fostering topic curiosity; promoting open exchange of perspectives;	Development of a list of known facts; formulation of predictions with supportive context; structured organization of true and false assertions; intricate logical exploration, and more.
II Stage	*Grasping the Content*: Assimilation of new knowledge; refinement of learning objectives	Acquisition of fresh insights concerning the subject matter; classification of acquired knowledge based on distinct knowledge categories; sustained topical interest.	Active learning approaches such as the INSERT method, double diary, mind mapping, cluster method, and others.
III Stage	*Reflective Engagement:* Reflection, internalization, and augmentation of knowledge; refinement of individual educational goals	Deliberative discourse on newly acquired insights; cultivation for continued exploration; alignment of novel information with pre-existing knowledge; formulation and assessment of personal perspectives.	Consolidation of information through clusters, tables; establishment of causal links, creation of creative literary compositions, and more.

In the course of the instructional session, we employed methodologies predicated upon the technological framework elucidated earlier. Commencing with the I stage, we directed our pedagogical efforts towards the realization of the learning objective denoted as "4.2.3.1 Formulating and addressing queries aimed at unravelling textual connotations" within the context of Kazakh language instruction (Jūmabaeva et al., 2019). This pursuit necessitated the cultivation of students' curiosity and imaginative faculties.

The premise of this stage entailed a comprehensive exploration of semantically resonant terms such as "good character," "moral disposition," "amicable demeanor," "virtuous attributes," "ethical integrity," "kind expressions," "modesty," "benevolence," "courteous conduct," "gentle disposition," "sincerity," "resolute spirit," "empathy," "tranquility," and others. Students were tasked with delving into the intrinsic rationale for the inclusion of these lexicons in the lesson's purview. An array of probing inquiries was proffered, encompassing the interconnections among these terms, their potential categorization, their relevance to preceding subject matter, inferred signification, and the substantiation of personal interpretations. These questions are: *Why are we considering these words in today's lesson? What are the connections between words? How can we Group these words? ... what is the relationship with the topics covered in the past? What is the meaning of keywords in your opinion? Why? What proof can you give him? Continue the list of keywords...*

Through this dialectic, students were actively encouraged to articulate their perspectives sans apprehension of error or undue correction by the instructor. This discursive endeavour facilitated the free exchange of ideas, contributing to a collaborative milieu wherein knowledge and experience were collectively enriched. The synthesis of diverse viewpoints engendered novel insights and captivating notions, fostering a sense of self-efficacy and a nuanced comprehension of the "values" underpinning these concepts (Colmar et al., 2019). This pedagogical endeavour was geared towards equipping students with the cognitive tools requisite for grappling with multifaceted issues aligned with the overarching theme of "Warm Word," thereby empowering them to participate in collective decision-making and inference drawing. The exercises within this framework were meticulously formulated to elicit information gathering, systematic organization, comparative analysis, critical appraisal, and the validation of pre-existing student knowledge.

Transitioning to the subsequent II stage, the engagement with newfound information is actualized. Herein, students were bifurcated into two distinct groups, each presented with a distinctly literary narrative: Y. Altynsarin's "Noble Grass" (Rustemova, 2013) and A. Sarbopin's "Sugar and Stone". Tailored tasks were assigned to each group to facilitate an in-depth understanding of the respective stories. For instance, Group 1 was tasked with explicating the rationale underlying the nomenclature of "Noble Grass," offering personal interpretations rooted in textual evidence.

Task 1 (table 3) explains the reason why the author named the story "Noble Grass" and express your opinion.

Table 3- Sample of task 1

Author's idea	Student's idea
?	?

Task 2. E. Compare the two characters using a Venn diagram.

Task 3. Answer the questions.

Why, in your opinion, is the name of the grass called "patience"?

In what situations in life can the word" patience " be used?

Task 4. Fill in each direction of the picture using the "Mind mapping" method.

Task 5. Formulate questions aimed at finding a solution to the content of the text. For example,

What are the differences in the character traits of batima and Zlikha?

What would you answer if you were in Batima's place?

Tasks proposed for group 2:

Task 1. Answer the questions that reveal the idea of the story "Sugar and Stone" by A. Sarbopin. For example,

Do you understand the properties of sweet and hard?

Do you think sweet is good or hard is good?

How much do you agree with the concept that sweet is good?

Task 2. Compare sugar and sweetness using a Venn diagram.

Task 3. Fill the table *(table 4)*

Table 4- *Sample of task 4*

Prediction	New information

Task 4. Follow up with questions about the text.

1. *1. Do you think the text can be interpreted differently? Why?*

2. ...

Tasks directed along this trajectory facilitate multifaceted cognitive processes. They engender comprehension of novel information, the ability to discern its concordance with pre-existing knowledge and experiential insights, the skill

to formulate pertinent and solution-oriented inquiries, the aptitude for meticulous analysis of emerging data, the capacity to synthesize one's viewpoint, and the competence to substantiate one's stance with cogent reasoning.

In the ensuing III stage, the salient theme of reflection takes center stage. As articulated by Bustrom (1996), reflection represents a distinct realm of cognitive engagement, characterized by focused contemplation, measurement, evaluation, and selection (Zair-Bek & Mushtavinskaya 2011). At this juncture, the recently assimilated information transforms into knowledge, paving the way for a phase of reflective analysis. This reflective analysis strives to unveil the intrinsic essence of the newly encountered material and serves as a foundational step toward charting future intellectual explorations. Guided by pertinent inquiries, students undertake the endeavour of introspection: What facets of today's discourse have been grasped? What remains enigmatic? What queries have remained unexplored? What dimensions of knowledge am I eager to delve into? The reflective process entails the harmonization of newfound information with pre-established ideas, thereby facilitating categorization into distinct knowledge domains. The culmination of this reflective analysis serves as a pivotal juncture, empowering students to autonomously formulate tasks, forecast outcomes, reach decisions, and cultivate their critical thinking capabilities.

Consequently, an array of digital resources including Kazakh fairy tales such as "Goodness and Evil" (Bismillah Tv, 2019), "The Legend of Tolagay" (Balaqay, 2020), and "The Story Without a Bullet" (SAQ Kinostudiasy, 2019) were judiciously examined. Tasks entailed the formulation of incisive questions that not only unveiled the narrative essence but also necessitated evaluative decision-making.

This overarching approach, underpinned by the structural framework of critical thinking technology, endeavours to foster students' intrinsic interest in the learning process. It encourages autonomous exploration, prompts the reinterpretation of the author's intent, facilitates immersion in character perspectives, stimulates the pursuit of problem-solving avenues, delves into the determination of connotative meanings, fosters the origination of innovative ideas, and engenders the analytical dissection of pivotal information. The tasks, meticulously tailored to resonate with the tenets of critical thinking, were seamlessly integrated throughout every phase of the pedagogical discourse.

In light of this comprehensive instructional approach, a control stage has been envisaged, designed to empirically verify the efficacy of the tasks deployed during the formative experimental stage. Replicating the methodology employed during the preliminary experimental investigation, a comparative analysis of both participant classes was undertaken before and post the experimental intervention, as delineated in Table 5.

Table 5 - *Control stage of critical thinking proficiency*

Levels	Control class		Experimental class	
	before n=28	after n=28	before n=30	after n=30
1	2	3	4	5
high	3,6% (1)	7,1% (2)	3,3% (1)	26,7% (8)
medium	35,7% (10)	42,9% (12)	30% (9)	56,7% (17)
low	60,7% (17)	50% (14)	66,7% (20)	16,6% (5)

Indicators of comparative results in the form of a chart are seen in Figure 2.

Upon meticulous analysis of the outcomes attained during the control stage, a discernible disparity emerges between the experimental and control classes after the formative stage. Notably, the control class exhibited an increment of 3.5 percent in the high proficiency level, a notable enhancement of 7.2 percent in the medium proficiency level, and a noteworthy reduction of 10.7 percent in the low proficiency level. Conversely, the experimental class experienced a substantial surge, manifesting a remarkable escalation of 23.4 percent in the

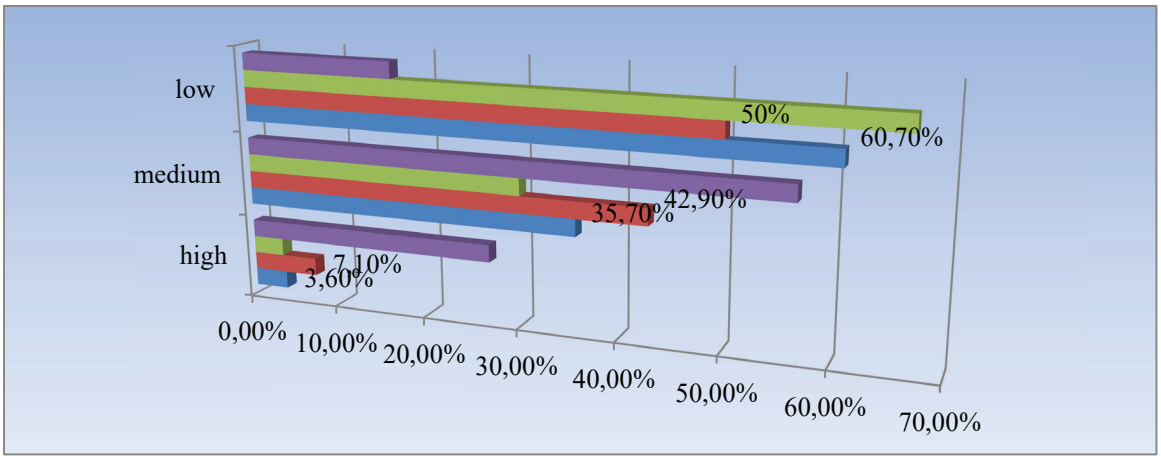

Figure 2 - Control stage of critical thinking proficiency

high proficiency stratum, and an even more pronounced advancement of 26.7 percent in the medium proficiency level, accompanied by a profound reduction of 50.1 percent in the low proficiency realm. These discernible shifts in critical thinking proficiency underscore the palpable efficacy of the meticulously developed tasks conceived within the framework of our research inquiry.

Conclusion. In summation, the ramifications of this investigation illuminate the exigency surrounding the cultivation of critical thinking competencies amongst students within the pedagogical domain. The contemporary educational landscape necessitates the cultivation of a cognitive toolkit that engenders the faculty for discernment, synthesis, and evaluation. The tripartite framework engendered through the three distinct stages, complemented by the strategic implementation of critical thinking methodologies, culminates in a cogent pedagogical approach for nurturing these cognitive attributes.

Furthermore, in the context of fostering critical thinking abilities amongst primary school students, the prescription of tasks aimed at formulating effective questions emerges as a pivotal pedagogical endeavour. These tasks not only unveil the crux of new informational substrates but also galvanize the intellectual acumen required to navigate problem-solving trajectories. The cultivation of critical thinking is contingent upon the student's adeptness in harmonizing existing knowledge, crystallizing individual perspectives, discerning thematic quandaries, decoding narrative nuances, and unravelling the instructor's underlying intent through incisive question formulation.

In essence, the potency of incisive questioning is unequivocal in its capacity to yield multifaceted outcomes in the development of critical thinking among primary school students:

- During the formative stage of the experiment, it enables the comparative analysis of characters within presented literary works, fairy tales, and stories, stimulating discourse on the author's thematic vision, fostering authentic engagement with real-world predicaments, and refining interpretative competencies.

- It imparts the capacity to effectively engage with information, differentiating principal semantic components within a given literary piece.

- It facilitates collaborative aptitude, enabling effective teamwork, and substantiating viewpoints through empirical evidence.

In conclusion, the profound implications of this investigation endorse the proposition that the orchestration of incisive questions catalyses the cultivation of critical thinking skills among primary school students. The intricate pedagogical endeavour, underscored by our tripartite model and underpinned by methodological precision, constitutes a tangible paradigm for nurturing cognitive sophistication within the educational milieu. The transformative potential of fostering critical thinking through the art of questioning is unequivocal, warranting its integration as a cornerstone of modern pedagogical practice.

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PARAMETERS AND CRITERIA OF THE SCHOOL EDUCATIONAL ENVIRONMENT EXPERTISE

Abstract

This article substantiates the relevance of the research problem, which consists in the need to solve state tasks in the field of ensuring cybersecurity of social substructures of society, which is the education system. The current legal framework of the problem under study is in urgent need of improvement and development in projection on the educational environment of the school. This is due to the clearly insufficient awareness of its subjects in matters of cybersecurity, cyber defense and cyber ethics. This is confirmed not only by the empirical observations of the

authors of this article, but also by the practical lack of clear pedagogical measures of cybersecurity of the school environment.

The purpose of the study is to reveal the specifics of cybersecurity of the school environment.

To achieve this goal, the authors of the article interpret the concept of cybersecurity in the context of the environmental approach in education, perceived as a methodology of scientific and pedagogical research.

Based on these methodological positions, the authors of the article propose a detailed system of parameters and criteria for the examination of cybersecurity of the school environment.

The developed system of parameters and criteria for the examination of cybersecurity of the school environment acts not only as a measuring tool, but also as a pedagogical mechanism for the formation of such an environment.

Further prospects of the research are connected with the discussion in the scientific and professional audience of the modified methodology of the cybersecurity examination of the school environment proposed by us, its approbation in the real educational process and refinement taking into account the opinions of scientists and teachers.

Keywords: cybersecurity, cybersafety, school educational environment, expertise, system of parameters and criteria of expertise.

Introduction. The relevance of this study is determined by the fact that the study of the school environment shows the ignorance of its subjects in matters of cybersecurity, cyber defense and cyber ethics. This is evidenced by the results of one of the studies: 78% of respondents have not encountered cyber incidents (Neuspokoyeva, 2021). It should also be noted that in the autumn of 2022, the number of cyber attacks in Kaznet increased several hundred times, massive external attacks were recorded (Musin, 2022). This shows the vulnerability of network resources and the need to protect the educational environment, since information systems function in schools Kundelik.kz, bilimland.kz, ekitap.kz, onlinemektep.kz.

In addition, the relevance of the study can also be justified by the practical experience of the authors of the article (as parents, experts), which indicates the presence of problems in the school environment related to cyberethics, cyberbullying, data confidentiality, cyber protection from viruses. Often there are facts of transferring accounts, re-correcting points, in addition, the procedure for checking the filling of electronic logs is not explained, and so on.

We fully agree with the researchers who claim that the main factor in ensuring cybersecurity is training: in order to minimize the negative consequences of cyber attacks, it is necessary to carry out work to improve the computer literacy of the population (Zeynelgabdin, 2019); knowledge of cybersecurity is an important part of the worldview of modern man and a necessary condition for his security; training in cyberethics should be the responsibility of all, to make up for the lack of knowledge and responsibility should begin with teachers.

Schools generate large amounts of data on tracking student progress, performing administrative functions, staffing and building a curriculum. However, not all this data falls under the school rules on cybersecurity for third-party Internet services. Therefore, the perceived risk of online resources is often not assessed, schoolchildren and teachers have little knowledge about the dangers of using third-party services, and teachers are not ready to teach cybersecurity to schoolchildren.

At the same time, the conducted research covers only one aspect of cybersecurity of the school environment, concerning cyberbullying, omitting the issues of cyberethics, cyber defense.

Since this article is an "entry" into the study of the above-mentioned topical issues, the purpose is to disclose the specifics of cybersecurity of the school environment. To achieve this goal, we intend to interpret the concept of cybersecurity in the context of the environmental approach in pedagogy.

Materials and methods. Methodological positions in our study are determined by the understanding of the importance of the environmental approach in education. At the same time, the main guidelines are the opinions of experts in this field, among whom we are impressed:

– Yu.S. Manuilov, who claims that "The variety of methods of using the possibilities of the environment in the theory and practice of the "big pedagogical process" allows you to combine innovations with retroviews that have

proven their effectiveness in the history of school development" (Manuilov, 2002);

− The methodology of the examination of the educational environment (Yasvina, 2001), when among the 11 parameters of the educational environment, the scientist identifies "... five "basic" parameters: breadth, intensity, and modality, degree of awareness and stability; as well as six parameters of the "second order": emotionality, generality, dominance, coherence, integrity, activity". We believe that when ensuring the cybersecurity of the school environment, all these parameters, with their appropriate modification, can serve as a starting position for the examination of the phenomenon we are studying;

− *Sulima I. I., who argues that the environmental approach in education is not only a methodology of scientific and pedagogical research, but also a methodology of practical activity of teachers, since "... The environmental approach is a theory of management of the process of formation and development of a student carried out through a specially-formed environment (Sulima, 2012);*

− A project carried out by specialists of the Moscow City Pedagogical University, who claim "... a qualitatively built and methodically thought-out educational environment allows not only accessibility and effectiveness, but also to reduce education costs and ensure the safety of students" (4).

Regarding cybersecurity, this article applies a theoretical analysis of a number of scientific papers and official documents. In particular:

− research by C. Brown, C. Chalmers, who argue for the need for a special cybersecurity policy at school (Brown et al., 2017); (Chalmers et al., 2016);

− the works of scientists of the United Arab Emirates, which indicate the lack of a universal method of preventing cybercrime in schools, offer many global solutions regarding cyberbullying. The Government of the United Arab Emirates has initiated the "Digital Safety of Children" program aimed at educating generations literate in the digital sphere (Siyam, 2021), and the smart security structure of the "Akdar School of Electronic Security" has also been launched (e-Safe School) (6);

− research by Portia Pusey and William A. Sadera (Towson University) (Pusey et al., 2011), according to which information security is a concept consisting of three "K" - cyberethics, cybersecurity and cyber defense. Cyberethics is a moral choice of people in the use of Internet technologies and digital media. It includes copyright, network etiquette, hacking, and Internet addiction. Cybersecurity consists of people's actions to minimize the danger when using Internet technologies. It covers the problems of online predators, viruses and spyware, the spread of malware and methods of deception when using Internet-compatible technologies (phishing, pharming and spoofing). Cyber protection includes technical interventions that protect data, identification information and equipment from unauthorized access or damage, as well as antivirus software, Internet content filters, firewalls and password protection;

- research by a group of such scientists as Sağlam R.B., Miller V. and Franqueira V.N.L.A, dedicated to cybersecurity education for children (under 18 years of age) on a global scale. Scientists have identified what cybersecurity skills are taught to children around the world, what are the key strategies/methods of cybersecurity training, and considered the question of which stakeholders are considered responsible for teaching cybersecurity to children. Scientists speak about the importance of using innovative teaching methods in teaching cybersecurity and the role of school teachers in raising awareness in this area (Sağlam, 2023).

- a scientific study by J. Knott, H. Yuan, M. Boakes and S. Li, which presents some new results and ideas about how British schools in general conduct their cybersecurity events and online security training on Twitter. They have launched a project that can help inform people and organizations interested in cybersecurity and teaching online security in schools (Knott, 2023).

- a research project by C. Mourning, D. Jueves, A. Hellman-Thrasher, H. Chunji, S. Katya, A. Karanth, in which high school teachers were trained in cybersecurity through a series of online seminars. Scientists talk in their project about raising awareness about cybersecurity in three areas: general cybersecurity issues, software

security and hardware security (Mourning, 2022).

Main part. Among the official documents on the problem of our research, we have attributed:

− The concept of "Cyber Shield of Kazakhstan", the purpose of which is to achieve and maintain the level of protection of electronic information resources, information systems and information and communication infrastructure from external and internal threats that ensure the sustainable development of the Republic of Kazakhstan in the conditions of global competition (7). This document speaks about the need for constant monitoring of compliance with the modern needs of society and trends in ensuring the safe development of information technologies in educational institutions. However, specific procedures for ensuring compliance with information security standards are not described;

− unified requirements in the field of ICT and information security, approved by the Government of the Republic of Kazakhstan, a list of necessary procedures and documents, including: methodology for assessing information security risks; rules for identification, classification and labeling of assets, inventory and certification of computer equipment, etc. (8);

− as well as a number of documents regulating cybersecurity for the banking and insurance sectors (9); (2).

It should also be noted that a number of organizations and companies directly dealing with cybersecurity issues have been identified by the method of desk research. For instance:

− the leader of the Kazakh market in this area is the Tsarka Company, which provides financial organizations with expert services in the field of information and cybersecurity (Polyakov, 2020);

− the organization "Cooperation in the Field of Science and Technology" (COST) brought together fifty-four leaders from twenty-seven European countries in order to exchange experiences in the field of cyber bullying in schools (O'Moore, 2013);

− an organization for the protection of personal data that operates in Kazakhstan on the basis of general regulations (data protection agency).

The Agency of the Republic of Kazakhstan for Regulation and Development of the Financial Market has created training lessons on the topic "Safe Internet and children's cybersecurity", thematic hours on countering financial pyramids and cyber fraud (5).

Next, we applied the method of interpretation of the above scientific materials, on the basis of which the modification of the methodology of examination of the school educational environment was carried out by Yasvin V.A. while maintaining the methods proposed by him for calculating the modality coefficient of the educational environment, taking into account the peculiarities of cybersecurity.

And, finally, the method of visualization of interpretation results is applied, which is presented in the form of a table reflecting a detailed system of parameters and criteria for the examination of cybersecurity of the school environment.

Results and discussion. As a result of the modification of V.A. Yasvin`s methodology, we propose a detailed system of parameters and criteria for the examination of cybersecurity of the school environment, presented in Table 1.

Table 1. *Parameters and criteria for the examination of cybersecurity of the school environment*

Expertise Parameters	Scores			
	0	1	2	3
1 Quality parameters				
1.1 Modality				
dogmatic				
career				
serene				
creative				
2 Quantitative parameters				
2.1 Width				
Virtual tours				

Virtual travel				
Online visits to cultural, sports events/facilities				
The possibilities of choosing educational online microenvironments				
2.2 Intensity				
The predominance of interactive forms and methods of teaching over traditional				
Monitoring of online learning load of students				
Organization of online leisure of students				
2.3 Awareness				
Knowledge of the rules of behavior in the Internet environment				
Compliance with the rules of behavior in the Internet environment				
Knowledge of means of protection against cyberbullying, cyber attacks				
The ability to use a means of protection against cyberbullying, cyber attacks				
Teachers' activity in online communication				
Parents' activity in online communication				
2.4 Generality				
Cybersecurity Risk Management				
The existence of a concept for the development of cybersecurity of the educational environment				
Availability of standards for ensuring the cybersecurity of the educational environment				
The success of the implementation of the Concept of cybersecurity development of the educational environment				
Monitoring of the cybersecurity of the educational environment				
2.5 Emotionality				
The predominance of coping behavior of students in the digital environment				
The predominance of teachers' coping behavior in the digital environment				
The predominance of coping behavior of parents in the digital environment				
2.6 Dominance				
The dominance of the live communication environment over online communication for teachers				
The dominance of the live communication environment over online communication for students				
The dominance of the live communication environment over online communication for parents				
2.7 Coherence				
Continuity with the organizations of TVET and HPE in the field of digital pedagogy (consistency of curricula)				
2.8 Social activity				
Broadcasting achievements in the Internet environment				
Working with the media, social networks				
2.9 Mobility				
Implementation of additional (elective) academic subjects/modules focused on functional (digital) literacy of students				
The use of digital technologies in the holistic pedagogical process				
Development of digital competencies of teachers				

Of the 11 parameters proposed by Yasvin V.A., we selected 10, one of which is a qualitative measurement of the educational environment (1.1 modality of the educational environment) and 9 is a quantitative assessment (2.1-2.9). At the same time, we considered it appropriate to change the scaling of estimates, which consists in the following criteria: does not manifest itself – 0 points, does not manifest itself rather than manifests itself – 1 point, rather manifests itself than does not manifest itself – 2 points, manifests itself completely – 3 points. It should be noted

that several indicators of parameters 2.3 and 2.4 are not evaluated on a three-point scale (they are highlighted in color in the table).

Regarding the modality of the educational environment: the first parameter means that the environment promotes the development of "passivity and dependence of the child", the second - the development of "activity, but also dependence of the child", the third promotes "free development, but also causes the formation of passivity of the child", the fourth – "free development of an active child" (Yasvin, 2001:79-80]. The remaining parameters are interpreted by us in the context of ensuring the cybersecurity of the school environment.

The system of examination of cybersecurity of the school environment proposed by us is an initial version, which in the course of further discussion and testing can be supplemented or modified to a certain extent (this article was prepared by us at the very beginning of the study, i.e. the results obtained are an introduction to the research problem).

Conclusion. Based on the conducted research, we came to the following conclusions:

Ensuring the cybersecurity of the school's educational environment is an urgent task in Kazakhstan. Currently, there are a number of organizations operating in the country whose activities are aimed at ensuring the cybersecurity of socio-economic processes. At the same time, the legal field of their activities is determined by official documents. However, these documents and procedures require improvement in the aspect of cyber defense and cyber ethics, need to be adapted for their use in the education system, as they are not updated in accordance with the specifics of the school environment.

The study showed that the environmental approach in education, being a methodology of scientific and pedagogical research, fully acts as a guideline for ensuring the cybersecurity of the educational environment of the school.

The system of parameters and criteria for the examination of cybersecurity of the school environment developed by us acts not only as a measuring tool, but also as a pedagogical mechanism for the formation of such an environment.

Further prospects of the research are connected with the discussion in the scientific and professional audience of the modified methodology of the cybersecurity examination of the school environment proposed by us, its approbation in the real educational process and refinement taking into account the opinions of scientists and teachers.

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