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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.

The journal is included in the republican system of the Scientific citation index – the Kazakhstan Citation Database (KazCD).

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INNOVATIVE APPROACHES TO SUPPORTING WOMEN'S LEADERSHIP IN THE EDUCATIONAL ENVIRONMENT OF HIGHER EDUCATION INSTITUTIONS

Abstract

This article examines innovative approaches to supporting women's leadership in the educational environment of higher education institutions. Despite significant progress in female representation in academic settings, gender imbalance in educational leadership remains a critical global challenge. Through analysis of contemporary theoretical and applied research from American, European, and Asian institutions with varying levels of economic development, the study identifies key barriers to women's advancement in academic leadership. These include cultural factors (entrenched gender norms and male-dominated institutional cultures), psychological barriers (imposter syndrome and leadership anxiety), and organizational obstacles (glass ceiling phenomena and biased hiring practices). The research highlights the particular challenges in Kazakhstan, where women constitute only 26.5 percent of top university leadership despite their substantial representation among higher education professionals. By examining global best practices and Kazakhstan's specific context, the study identifies effective Innovative Approaches including institutional initiatives, structured networking opportunities, formalized mentoring programs, and family-supportive policies. Based on this analysis, the research proposes forward-thinking interventions for Kazakhstan's higher education sector: implementing targeted leadership development programs, enhancing transparency in human resource policies, creating innovative work-life balance solutions, and establishing robust professional networks for women academics. These innovative approaches aim to address persistent gender disparities while creating sustainable pathways for women's leadership advancement in higher education. The analysis emphasizes the importance of comprehensive, context-sensitive strategies that adapt proven innovative practices to local educational environments.

Keywords: gender equality, academic leadership, women leaders, gender stereotypes, glass ceiling.

Introduction. Gender equality, including in higher education, remains one of the most important challenges of modern society, despite the positive steps taken in recent decades. While women constitute a significant proportion of students and professors in universities, their presence in high academic and managerial positions remains limited. These findings are supported by studies that point to the difficulty of promoting women to leadership positions in university academic environments (Redmond et al., 2016; Gandhi & Sen, 2021).

Researchers note that there is a direct link between the level of gender equality and economic performance of a country (Mukhamadiyeva et al., 2019). Using the case of Kazakhstan as an example, they showed that reducing gender disparities will not only contribute to social development, but will also have a positive impact on the country's economy, increasing the effectiveness of existing programs to develop human capital and strengthen economic stability. Kazakhstan is taking steps to achieve gender equality through the implementation of state strategies, including the Concept of gender and family policies until 2030 (On approval of the Concept of family and gender policies in the Republic of Kazakhstan until 2030, 2016) and

commitments to Sustainable Development Goal (SDG) 5 – Gender Equality (United Nations Kazakhstan, n.d.). These initiatives emphasize Kazakhstan's commitment to creating equal opportunities for men and women. However, despite legislative efforts, statistical data from recent years show that the situation in education is still far from ideal. According to reports from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, women are a more qualified labor force than men: 41.4% of women have higher education, while among men the percentage of persons with higher education is lower. In the education sector, the total number of female employees is 79.2% of all employees (Bureau of National Statistics, 2023). On average, the number of female senior managers in universities is 26.5%. Statistically, there are three male rectors for every one female rector (Bureau of National Statistics, n.d.). Thus, taking into account the employment of women in the education sector, we see a significant gender imbalance in the representation of women in leadership positions in higher education.

Despite the abundance of data on gender issues in general (Koenig et al., 2011), there is a gap in educational research between the need to synthesize and systematize available information and its fragmentation. Relevant data, studies, and reports exist in isolated forms, making it difficult to use them effectively to develop systemic solutions. This gap hinders the full analysis and development of strategies to address the gender imbalance in academic leadership.

In this regard, the generalization of the best world and Kazakhstani experience of psychological and pedagogical support of women's leadership in the educational environment of universities is relevant and in demand. This will contribute to the formation of a sustainable environment for career and personal development growth of women leaders, will help to adapt the best support strategies to the cultural context of Kazakhstan. This approach will not only minimize barriers, but also create a system that promotes the development of women's professional competencies, strengthening their positions in academic leadership and the fulfillment of the country's international commitments in the framework of sustainable development.

In the context of our study, by mechanisms of psychological and pedagogical support we will mean a set of tools, processes, strategies and practices that contribute to the creation of favorable conditions for the career growth and development of women leaders in higher education.

Purpose of the study: development of science-based recommendations for the implementation of mechanisms of psychological and pedagogical support for women leaders, adapted to the educational system of higher education in the Republic of Kazakhstan based on the identification and analysis of factors that hinder the development of women's leadership.

With the objective in mind, we have formulated the following *research questions* for this paper:

1. What socio-cultural, organizational and psychological barriers impede the career development and advancement of women leaders?

2. What mechanisms contribute to the successful career development of women executives in a professional environment?

3. What mechanisms of Kazakhstan can be proposed, taking into account the adaptation of successful world experience?

Materials and Methods. This study is a theoretical review of contemporary publications on women's leadership in academia.

Methods used include: *content analysis:* identifying semantic categories (e.g., "gender stereotypes", "organizational practices", "cultural specificities"), key ideas and practices into thematic clusters; *systematization and conceptualization of data:* generalization of data from theoretical and empirical studies followed by systematization.

Procedure. Although this study is not a rigorous systematic review, nevertheless, we followed a certain procedure to develop scientifically valid conclusions and recommendations.

We used the following key phrases to search for publications, using AND and OR operators

to refine the queries: "women leadership", "leadership in higher education", "gender equality in academia", "women in university management", "gender barriers in education", "gender imbalance in leadership", "women leaders' development", "prospects of women leadership".

The following inclusion criteria were established: publications must cover the period from 2010 to 2024, cover research on higher education only, and be published in peer-reviewed English-language publications.

At the first stage, we removed duplicate entries and analyzed titles and abstracts. At the second stage, we analyzed the full text of the articles for compliance with the inclusion criteria. At the third stage, we conducted content analysis, summarizing and systematizing the content of publications.

Results. *Factors and barriers negatively affecting female academic leadership: socio-cultural barriers.*

- Discrimination based on gender stereotypes. Perceptions of leadership are often associated with masculine traits such as assertiveness and authoritarianism, while women who display the same qualities are criticized. For example, female leaders from Germany and the UK have noted that men's aggressive behavior is socially perceived as assertiveness, whereas similar behavior in women is interpreted as emotionality or incompetence (Read & Kehm, 2016)

- Sociocultural expectations. In countries with traditional cultures, expectations of women focus primarily on their role in the family. For example, in Vietnam, Confucian traditions reinforce the notion that women should focus on domestic responsibilities, limiting their career ambitions (Maheshwari et al., 2023). Studies in Bangladesh, Malaysia, and Malaysia indicate that women are expected to be highly involved in the family, which reduces their willingness and ability to assume leadership positions (Islam et al., 2023). Women in Kazakhstan face the influence of traditional, Soviet and Western values, which creates conflicting expectations and complicates their career development. In Kazakhstan, women are forced to balance family expectations and professional ambitions. This double standard creates significant barriers to career development (Kuzhabekova & Almukhambetova, 2017).

– The predominance of masculine culture in universities. The culture of universities remains predominantly male. Women are often excluded from informal professional networks where key decisions are made. Male dominance is perceived as the natural order, preventing women from participating equally. A study by Read and Kehm (2016) found that women leaders face the fact that their leadership style is perceived as 'unnatural' and professional successes are often downplayed. Often women leaders lack knowledge of the 'rules of the game' in such environments (Morley, 2012).

Organizational barriers.

- Gender inequality. Women are underrepresented quantitatively in top university positions around the world, regardless of a country's economic development. In the European Union, for example, only 13% of higher education institutions are headed by women (Morley, 2012). This trend persists despite the high level of women's participation in higher education and the great work done by states to support gender equality policies. In general, most researchers note a slower and thornier career path for women leaders compared to men. More women are in lower-level academic positions. At the same time, they tend to have high workloads and limited opportunities for career advancement. In Kazakhstan, most women leaders remain at the middle management level, which limits their influence on key decision-making (Kuzhabekova & Almukhambetova, 2019; Diehl & Dzubinski, 2020; Islam et al., 2023; Mynbayeva et al., 2024; Yahya et al., 2024).

- Policies for hiring and promotion to leadership positions. Hiring and promotion procedures for leadership positions, especially for senior managers, are often shaped by male stereotypes of leadership. For example, requirements for "leadership skills" in job descriptions predominantly align with masculine traits: the ability to actively promote and advocate, high self-confidence, and the ability

to take risks. Additionally, male-dominated selection panels reduce women's chances of advancement (Morley & Crossouard, 2016; Gandhi & Sen, 2021). Lack of transparency and nepotism hinder women's advancement, as access to leadership positions is often determined by informal networks rather than professional achievements (Kuzhabekova & Almukhambetova, 2017).

- Queen Bee Syndrome. It has been observed that older female executives are not always supportive of their younger female executive colleagues. This phenomenon occurs when women in leadership positions perceive other women as a threat and hinder their career advancement. For example, research in Australia and India has shown that female leaders may consciously avoid supporting female colleagues in order to maintain their position in a male-dominated environment (Redmond et al., 2016; Gandhi & Sen, 2021).

- Lack of mentoring and low inclusion/non-inclusion of women in professional networks. The absence or low number of positive female role models and mentors hinders women's advancement. In addition, participation in professional networks, which are often formed as "old boys' clubs" (Gandhi & Sen, 2021), is limited for women. Women often do not gain access to such networks, which reduces their chances of career advancement (O'Connor, 2020). For women, this is felt as a lack of sufficient social capital and professional support (Redmond et al., 2016). At the same time, women are less prepared for leadership positions compared to men (Kuzhabekova & Almukhambetova, 2019).

- The "glass ceiling" and "glass cliff" phenomena. Gender biases limit women by creating invisible barriers to their advancement (the "glass ceiling"). Often women are appointed to crisis positions ("glass cliff") where they are more likely to fail. This has the effect of reinforcing stereotypes about women's inability to be effective leaders. An article on Swedish academic leaders notes that women are more likely to hold positions in difficult and unstable environments, such as when universities are experiencing serious financial or organizational problems (Peterson, 2015). These positions come with increased workloads and less status, making them less attractive and more challenging and successful career paths (Kuchumova et al., 2024).

- Inflexible working conditions. Traditional structures of managerial working hours that include irregular schedules complicate the balance between career and personal life for women. For example, women cite the need for flexible schedules to successfully balance family and professional responsibilities (Redmond et al., 2016; Gandhi & Sen, 2021).

Psychological barriers.

- Imposter syndrome. This phenomenon is particularly characteristic of women leaders who doubt their competence and consider their achievements to be the result of luck rather than the result of their professional skills. In Kazakhstan, almost all women leaders who participated in the study faced this syndrome at different stages of their careers. It should be rightly noted that if imposter syndrome is present in a woman in a mild form, it can be a stimulus for self-improvement and creativity. Kazakhstani women have noted that self-doubt can motivate them to learn and take risks (Kanatova, 2023).

- Fear of high workload and responsibility. Women in various countries, including Mexico and Vietnam, often forgo career advancement for fear of the additional workload and responsibility associated with leadership positions. Women fear criticism for making mistakes in such environments, suggesting perfectionism as a personality trait. (Maheshwari & Nayak, 2022; Maheshwari et al., 2023).

- High psychological burden. Women face additional emotional pressure and stress related to the need to meet gender expectations, prove their competence and combine professional and family roles (Morley, 2012; Peterson, 2015).

The key mechanisms that contribute to successful career development of women leaders in academia.

- Transformation of cultural and gender stereotypes in the university environment. The gradual abandonment of patriarchal norms in Mexico and India and other countries is

contributing to an increase in the number of women aspiring to leadership positions. In Vietnam and Sweden, there is a growing awareness of the importance of diversity and inclusion in the workplace (Peterson, 2015; Gandhi & Sen, 2021; Maheshwari, G., & Nayak, R., 2022; Maheshwari et al., 2023).

- Changing mentality of employers of educational organizations. The younger generation of employers show a more open attitude towards women in leadership, which contributes to their career development (Maheshwari, G., & Nayak, R., 2022).

- Positive perceptions of leadership roles in society in general and in academia in particular. In countries where collaboration and participation are valued (e.g. Sweden), women leaders find more support and approval for their empathetic and collaborative leadership style (Peterson, 2015).

- Institutional support. Gender equality policies, such as initiatives to empower women in universities, contribute to creating an enabling environment for their career advancement. For example, the increase in the number of women university presidents indicates progress in breaking the glass ceiling in higher education governance (Peterson, 2015; Maheshwari et al., 2023).

- Family support. In many countries, support from family, including partners and parents, is critical for women leaders. In Australia and India, men are increasingly taking on some domestic responsibilities, allowing women to focus on their professional lives. In Vietnam and Mexico, family support helps women effectively balance work and family commitments (Redmond et al., 2016; Gandhi & Sen, 2021; Maheshwari, G., & Nayak, R., 2024; Maheshwari et al., 2023; Kanatova, 2023).

- Networking and social capital. A key factor in psychoeducational support for women is participation in formal and informal professional networks and communities. Social capital acquired through such networks facilitates access to resources, mentors, and career opportunities (Australia, India). Women who are actively involved in professional communities are better positioned to advance their careers and develop leadership skills (Redmond et al., 2016; Gandhi & Sen, 2021).

- Mentoring and support for executives in academia. Mentor support plays a meaningful role in women's careers, especially at the beginning of a managerial career. For example, in Vietnam, mentoring provides both professional and psycho-social benefits to help women overcome challenges and accelerate their career progression. Having role models and women leaders willing to share their experiences inspires and motivates success (Maheshwari, G., & Nayak, R., 2022).

- Solid track record. Women who demonstrate outstanding professional achievements are able to overcome bias. Their performance becomes the main argument for recognizing their competence (Read & Kehm, 2016).

- Developing resilience and adaptability in women leaders. Women with adaptability and resilience are more successful in overcoming career challenges. In Australia and Sweden, these qualities are considered key to leadership (Peterson, 2015; Redmond et al., 2016).

- Developing self-esteem and self-efficacy. Confidence in their leadership abilities and awareness of their own potential play an important role in women's career development. In Vietnam, recognition of their leadership styles motivates women's career development. Belief in their ability to succeed is especially important in fields that traditionally have more men, such as STEM (Maheshwari, G., & Nayak, R.,2022; Kuchumova et al., 2024).

- Building personal resilience and tolerance for bias. Women who perceive criticism as an opportunity for growth are more successful in adapting to leadership challenges. Their ability to remain confident in their decisions under pressure helps them constructively navigate difficult career moments (Peterson, 2015; Read & Kehm, 2016).

Discussion. The findings emphasize the complex structure and depth of barriers and factors affecting women's career advancement in academic leadership. Sociocultural barriers, such as traditional expectations and stereotypes, require changing societal norms. Organizational barriers emphasize the importance of transpa-

rency in personnel policies and the need to create an inclusive environment. For example, successful mentoring practices and professional networks can play a key role in supporting women to overcome internal and external barriers. However, it is important to recognize that women leaders often experience internal contradictions and difficulties, which requires special attention to developing their self-esteem and self-efficacy.

Mechanisms that promote and support women leaders demonstrate that it is possible to create a more favorable environment for their career development. Experience from countries with high levels of gender inclusion shows that systemic changes, such as flexible working hours and support for family responsibilities, can significantly improve the situation.

Kazakhstan can learn from international experience and adapt successful practices to its cultural and institutional context. The following recommendations are based on the analysis and synthesis of current practices and approaches developed in the area of psycho-pedagogical support mechanisms for women's leadership:

- Developing inclusion and diversity policies in universities. Research shows that inclusive and diverse teams are more likely to innovate (Peterson, 2015; Morley, 2012). Universities with high levels of gender diversity experience better governance, increased student achievement, and improved organizational culture. Gender diversity in governance structures contributes to reduced bias and a more equitable environment. For example, in Sweden and Norway, inclusive human resource policies focused on increasing the number of women in leadership positions have led to improved overall university reputation and competitiveness (Peterson, 2015).

- Encourage the use of cultural context. Kazakhstan's cultural context includes elements of traditional, Soviet and Western culture that can be used as a resource. The flexibility and adaptability of Kazakhstani women allow them to successfully manage different expectations. Emphasizing and articulating the success stories of Kazakhstani women leaders is critical to building positive role models (Redmond et al., 2016).

- Developing mentoring programs. Mentoring programs play a key role in supporting the career development of women leaders in academia. For example, the ACE Women's Leadership Mentoring Program assists female participants through one-on-one sessions with experienced mentors who share management strategies and help overcome career barriers (Gandhi & Sen, 2021). The Aurora Leadership Program in the UK focuses on mentorship from women leaders who share experiences in adapting to gender challenges and help develop confidence in making managerial decisions (Maheshwari & Nayak, 2022). In addition, the European Women Rectors Association (EWORA) organizes mentoring initiatives that allow young leaders to learn from more experienced peers and strategies for successful management (European Women Rectors Association, n.d.). Implementing similar mentoring initiatives in Kazakhstan is recommended as they can address the challenges women face in balancing traditional expectations with professional ambitions while fostering their integration into leadership roles and enhancing their career progression in academia.

- Support transparency in human resources policies. Introduce clear and open processes for selection and appointment to leadership positions to eliminate the influence of gender stereotypes and nepotism. In universities, where key promotion decisions are often based on personal connections rather than professional achievements, women face limited access to leadership positions. Transparent criteria and systems for evaluating candidates minimize the possibility of such informal practices (Morley & Crossouard, 2016).

- Creation and development of professional networks in Kazakhstan, integration into international communities**.** Creating a Kazakhstani national network of women leaders in higher education, which will include online platforms for discussing issues and sharing successful practices, will help strengthen professional and personal ties. Participation in international networks such as the European Women Rectors Association (EWORA) will provide Kazakhstani women academics with

many opportunities, such as access to global best practices, training, and access to a research base on leadership topics. According to the European Women Rectors Association (n.d.), the knowledge and experience gained here can be used to develop and implement new approaches to gender policy in Kazakhstani universities.

- Leadership development training. Training plays an important role in the development of women leaders in academia by providing them with the tools they need to overcome barriers and strengthen their position. For example, the Aurora Leadership Program in the UK addresses imposter syndrome, strategic management training, and emotional intelligence. These programs help participants feel more confident in decision making and ready for leadership positions (Morley & Crossouard, 2016). Another successful example is the HERS Leadership Institute, which focuses on developing diversity and inclusion management skills to help women successfully adapt to the challenges of leadership roles (Peterson, 2015). In the US, the Harvard Women in Higher Education Leadership Program provides women with access to mentoring networks and training modules aimed at increasing professional self-esteem and developing resilience to bias (Redmond et al., 2016). Such trainings also emphasize negotiation, conflict management and the development of leadership competencies. Successful international examples support the importance of integrating such trainings into professional development (Maheshwari et al., 2023; Gandhi & Sen, 2021).

- Supporting work-life balance. In studies conducted at regional universities in the United States, it has been shown that the introduction of flexible working arrangements, such as the ability to work remotely or choose part-time employment, significantly eases the burden on women leaders. This contributes to the retention of women in leadership positions, especially during periods of work-life balance (Redmond et al., 2016). Such initiatives allow women leaders to feel more comfortable in positions of responsibility, which will reduce the risk of leaving the professional environment due to the inability to reconcile career and personal life.

- Increasing the role of research and dialog. Research plays a significant role in identifying barriers and analyzing successful psychoeducational practices. For example, in the UK and Germany, funding for gender research in academia has enabled the identification of systemic barriers and ways to overcome them (Morley & Crossouard, 2016). In Kazakhstan, detailed research on gender dynamics, especially in the aspect of educational leadership is still poorly represented. Promoting and funding research on women's leadership, including analysis of barriers and effective psychological and pedagogical support mechanisms tailored to the Kazakh context, seminars and conferences on gender equality would help to disseminate knowledge and support the development of women leaders.

The *limitations* of this study are related to its theoretical review nature, which requires validation and testing of results and conclusions in practice. The time range of sources used (2010-2024) may exclude earlier studies that may still be relevant. Although the study relies on structured methods of analysis, it does not represent a rigorous systematic review, which may affect the representativeness of the data. Finally, the focus solely on higher education excludes consideration of women's leadership in other sectors.

These limitations highlight directions for further research, including conducting empirical studies, deepening local contextual analysis, and expanding thematic coverage.

This article *contributes* to the research on mechanisms of psychological and pedagogical support for gender equality in higher education by emphasizing, clarifying and supplementing the data on barriers and factors affecting career advancement of women leaders. The authors link global trends and local peculiarities, offering specific recommendations for Kazakhstan, adapted to its cultural and institutional conditions. The suggested mechanisms, including mentoring programs, improving transparency in personnel policies and promoting work-life balance, and leadership

trainings, have practical value in addressing the gender imbalance in academic leadership and truly supporting women in leadership positions. The article also reinforces Kazakhstan's efforts to fulfill its international commitments to achieve gender equality within the framework of the Sustainable Development Goals. Gender balance and effective psychological and pedagogical support mechanisms will enable women leaders to make valuable contributions not only to education, but also to Kazakhstan's prosperity and sustainable development. Thus, the study contributes not only to the theoretical understanding of the problem, but also to the development of practical tools that can be used by researchers, policy makers and educational institutions.

Conclusion. The analysis of gender equality in higher education has identified key barriers to women's advancement to leadership positions and factors contributing to their career success. The problem of gender imbalance remains relevant in the global and Kazakhstani context, despite positive changes in recent decades. The main barriers identified in the study are cultural, organizational and psychological factors. Among them are gender discrimination, lack of transparency in recruitment procedures, prevalence of male stereotypes of leadership, impostor syndrome and restrictions related to inflexibility of working conditions. Particular attention was paid to the phenomenon of the "glass ceiling" and "glass cliff" that continue to limit women in their career aspirations. In the cultural context, traditional expectations of women's roles and the predominantly male culture in universities also contribute to the persistence of disparities. The study identified a number of innovative approaches in international practice that contribute to the career success of women leaders, including institutional support, access to professional networks, mentors and family support. Of particular importance is the cultivation and support of women leaders' qualities such as resilience, adaptability and self-efficacy, and leadership potential. Based on the analysis of international experience, psychological and pedagogical mechanisms to support women leaders that can and should be adapted for Kazakhstan have been proposed, including the development of mentoring programs, strengthening institutional culture, creating conditions for work-life balance, using professional networks and cultural resources, and leadership training. An important part of these initiatives is addressing gender asymmetries through inclusive and diverse workplace practices.

References

Abai University (2024). Pedagogıkalyq praktıkanyn jana formaty [A new format of pedagogical practice]. https://kaznpu.kz/ru/33663/press/ [in Kazakh]

Bureau of National Statistics. (2023). Rynok truda v gendernom aspekte [The labor market in the gender aspect]. Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. Retrieved November 25, 2024, from https://www.gov.kz/memleket/entities/stat/press/news/details/450672?lang=en [in Russian]

Bureau of National Statistics. (n.d.). Obshchestvennaya zhizn' i uchastiye v prinyatii resheniy [Social life and participation in decision making]. Retrieved November 25, 2024, from https://gender.stat.gov.kz/ru/category/9 [in Russian]

Diehl, A. B., & Dzubinski, L. M. (2020). Making the invisible visible: A cross-sector analysis of gender-based leadership barriers. Journal of Management Studies, 58(5), 1234-1260. https://doi.org/10.1002/hrdq.21248

European Women Rectors Association. (n.d.). Activities. Retrieved November 26, 2024, from https://www.ewora.org/activities.

Gandhi, M., & Sen, K. (2021). Missing women in Indian university leadership: Barriers and facilitators. Educational Management Administration & Leadership, 49(2), 352-369. https://doi.org/10.1177/1741143219896048

Islam, M. A., Hack-Polay, D., Rahman, M., Jantan, A. H., Dal Mas, F., & Kordowicz, M. (2023). Gender and leadership in public higher education in South Asia: Examining the individual, socio-cultural and organizational barriers to female inclusion. Studies in Higher Education, 48(8), 1197-1215. https://doi.org/10.1080/03075079.2023.2187771

Kanatova, R. (2023). Women leaders: Overcoming impostor syndrome in higher education in Kazakhstan. Journal of Higher Education Theory and Practice, 23(14). https://doi.org/10.33423/jhetp.v23i14.6382

Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. Psychological Bulletin, 137(4), 616-642. https://doi.org/10.1037/a0023557

Kuchumova, G., Kuzhabekova, A., Almukhambetova, A., & Nurpeissova, A. (2024). Women's science, technology, engineering, and mathematics persistence after university graduation: Insights from Kazakhstan. Journal of Career Development, 51(3), 408-428. https://doi.org/10.1177/08948453241251466

Kuzhabekova, A., & Almukhambetova, A. (2017). Female academic leadership in the post-Soviet context. European Educational Research Journal, 16(2-3), 183-199. https://doi.org/10.1177/1474904116682040

Kuzhabekova, A., & Almukhambetova, A. (2019). Women's progression through the leadership pipeline in the universities of Kazakhstan and Kyrgyzstan. Compare: A Journal of Comparative and International Education, 51(1), 99-117. https://doi.org/10.1080/03057925.2019.1599820

Maheshwari, G., & Nayak, R. (2022). Women leadership in Vietnamese higher education institutions: An exploratory study on barriers and enablers for career enhancement. Educational Management Administration & Leadership, 50(5), 758-775. https://doi.org/10.1177/1741143220945700

Maheshwari, G., Gonzalez-Tamayo, L. A., & Olarewaju, A. D. (2023). An exploratory study on barriers and enablers for women leaders in higher education institutions in Mexico. Educational Management Administration & Leadership, 0(0). https://doi.org/10.1177/17411432231153295

Morley, L. (2012). The rules of the game: Women and the leaderist turn in higher education. Gender and Education, 25(1), 116-131. https://doi.org/10.1080/09540253.2012.740888

Morley, L., & Crossouard, B. (2016). Women's leadership in the Asian Century: Does expansion mean inclusion? Studies in Higher Education, 41(5), 801-814. https://doi.org/10.1080/03075079.2016.1147749

Mukhamadiyeva, A., Agumbayeva, A., Alpysbayev, K., Ramazanova, K., Abenova, G., & Duiskenova, R. (2019). Vliyaniye gendernogo ravenstva na sotsial'no-ekonomicheskoye razvitiye Kazakhstana [Impact of gender equality on socio-economic development of Kazakhstan]. Space and Culture, India, 7(2), 3-14. https://doi.org/10.20896/saci.v7i2.449 [in Russian]

Mynbayeva, A., Minazheva, G., Sadyrova, M., & Zholdassova, M. (2024). Examining leadership styles in higher education management: Evidence from Kazakhstan. International Journal of Leadership in Education, 1(0), 1-22. https://doi.org/10.1080/13603124.2024.2304564

O'Connor, P. (2018). Gender imbalance in senior positions in higher education: What is the problem? What can be done? Policy Reviews in Higher Education, 3(1), 28-50. https://doi.org/10.1080/23322969.2018.1552084

On approval of the Concept of family and gender policies in the Republic of Kazakhstan until 2030 (2016). Ob utverzhdenii Kontseptsii semeynoy i gendernoy politiki v Respublike Kazakhstan do 2030 goda [On approval of the Concept of family and gender policies in the Republic of Kazakhstan until 2030]. President of the Republic of Kazakhstan. Adilet Legal Information System. https://adilet.zan.kz/eng/docs/U1600000384 [in Russian]

Peterson, H. (2015). Gender and prestige in Swedish academia: Exploring senior management in universities and university colleges. Scandinavian Journal of Educational Research, 61(1), 1-17. https://doi.org/10.1080/00313831.2015.1066437

Read, B., & Kehm, B. M. (2016). Women as leaders of higher education institutions: A British-German comparison. Studies in Higher Education, 41(5), 815-827. https://doi.org/10.1080/03075079.2016.1147727

Redmond, P., Gutke, H., Galligan, L., Howard, A., & Newman, T. (2016). Becoming a female leader in higher education: Investigations from a regional university. Gender and Education, 29(3), 332-351. https://doi.org/10.1080/09540253.2016.1156063

United Nations Kazakhstan. (n.d.). Osnovnyye meropriyatiya, svyazannyye s Tsel'yu ustoychivogo razvitiya 5 [Key activities related to Sustainable Development Goal 5]. United Nations. Retrieved November 25, 2024, from https://kazakhstan.un.org/en/sdgs/5/key-activities [in Russian]

Yahya, U., Anwar, R. H., & Zaki, S. (2024). Women leaders in higher education: A systematic review offering insights for nations with wider gender gaps. NED University of Engineering & Technology, Pakistan. Retrieved from https://www.iier.org.au/iier34/yahya-abs.html

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CONCEPTUAL FOUNDATIONS OF DEVELOPING ENTREPRENEURIAL ACTIVITY IN THE CONTEXT OF UNIVERSITY EDUCATION

Abstract

In the context of the global economy and digital transformation, there is an increasing need to train teachers with entrepreneurial competencies. Modern challenges require future teachers not only to possess subject knowledge, but also the ability to initiate educational innovations, manage educational projects, and adapt to changes in the social and economic environment. The research is based on a conceptual analysis of the theories of entrepreneurship, motivation and education. Such theories as the theory of entrepreneurial opportunities, the theory of social capital, the theory of self-determination, the theory of entrepreneurial competence, the theory of achievement motivation, the theory of resilience and the theory of planned behaviour are considered. The analysis revealed the main cognitive, motivational and activity factors influencing the formation of students' entrepreneurial activity. The results of the study show that the integration of these theoretical models into educational programs helps to increase the level of independence, initiative and innovative thinking among future teachers. The findings can be used to improve university educational programs aimed at developing students' entrepreneurial activity.

Keywords: entrepreneurial activity; university education; entrepreneurial competencies; future teachers; students.

Introduction. Modern changes in the economy, social sphere and educational system require new approaches to training specialists who are able to work effectively in a dynamic and uncertain environment. In this context, entrepreneurial activity becomes particularly important, as it contributes to the development of students' qualities such as initiative, innovative thinking, the ability to adapt to rapidly changing conditions and make decisions in conditions of uncertainty (Hahn et al., 2020). According to research, entrepreneurial activity covers a wide range of processes, including the generation of new ideas, the search and use of market opportunities, the development and implementation of innovations, as well as risk management (Shaw & Perez, 2023).

Particular importance is attached to the formation of entrepreneurial competencies among future teachers, since their professional activities include not only training, but also the creation of educational initiatives, project management and the introduction of innovative teaching methods. Research confirms that the development of entrepreneurial competencies among students contributes to their professional growth, the formation of leadership qualities and an increase in the level of autonomy in decision-making (Kathayat, 2022). In addition, the integration of entrepreneurial activity into the educational process allows students to develop and implement their own projects, creating a sustainable platform for future professional development (Boldureanu et al., 2020).

Scientific research shows that educational programs that include elements of entrepreneurial activity contribute to a more effective assimilation of knowledge by students and the development of their critical thinking skills (Cui, Sun, & Bell, 2019). Entrepreneurial activity at the university not only expands career opportunities, but also provides students with

practical experience working with innovative teaching methods and educational technologies (Zainullina et al., 2024). Thus, the development of entrepreneurial activity among students of pedagogical fields is an important direction in the higher education system, ensuring their competitiveness and readiness for professional challenges.

The concept of entrepreneurial activity has been developed in the works of various researchers, starting with classical theories of entrepreneurship. Joseph Schumpeter viewed an entrepreneur as an innovator who creates value through the introduction of new combinations of resources. His ideas formed the basis for understanding entrepreneurship as a driving force for economic and social progress. Subsequently, the concept of entrepreneurial activity expanded to include not only economic, but also educational and social components. Research by Gartner (1988) focuses on the procedural approach to entrepreneurship, considering it as a sequence of actions aimed at implementing innovative ideas. In the context of education, entrepreneurial activity is associated with the development of students' ability to initiate and implement projects, develop and implement innovative teaching methods, and build effective models of interaction between educational institutions and external organizations.

In modern research, entrepreneurial activity is defined as the ability of a subject to create, develop and implement new ideas in various fields of activity. It is considered as a key factor in the professional development of students, as it includes elements of self-regulation, creativity, reflection and readiness for change. Research by Neck & Corbett (2018) confirms that involving students in entrepreneurial activities at the university level helps to increase their professional mobility and competitiveness. This is especially important for future teachers, as in the context of modern educational challenges they need to master project management methods, develop and implement new educational programs, create start-ups in the field of EdTech and coordinate interdisciplinary initiatives.

Materials and Methods. This research is theoretical and analytical in nature and is aimed at studying and systematizing existing concepts, theories and models of entrepreneurial activity in the context of university education. The main purpose of this study is to identify and substantiate key theoretical approaches that contribute to the formation of entrepreneurial competencies among students of pedagogical fields.

The following methods were used to achieve this goal: 1) the method of conceptual analysis is a systematic study of existing theories of entrepreneurship and pedagogy to integrate them into university educational programs; 2) the method of comparative analysis is a comparison of various theoretical models of entrepreneurial activity in terms of their applicability in an educational environment.

Data sources were collected from recognized scientific databases such as Web of Science, Scopus and Google Scholar, as well as from international conferences, analytical reports from universities and educational organizations. The focus was on publications containing a theoretical framework and empirical data relevant to the research topic. Priority was given to research published in peer-reviewed publications, with a clear focus on the relationship between theory and practice.

The literary search was conducted using the keywords: "entrepreneurial activity of students", "entrepreneurial education", "innovative pedagogical approaches", "entrepreneurial competencies", "professional development of future teachers".

The selection of publications was based on the following criteria: 1) relevance – articles devoted to entrepreneurial education and the development of entrepreneurial activity of students; 2) scientific validity – peer-reviewed sources containing a theoretical base and analytical research; 3) practical applicability – works related to educational practice and methodology of teaching entrepreneurial disciplines.

Results and Discussion. The study analyzes key theoretical approaches and concepts that contribute to the development of entrepreneurial

activity among students. It was revealed that students' entrepreneurial activity is a complex, multilevel process that includes cognitive, motivational, and socio-economic factors (Figure 1).

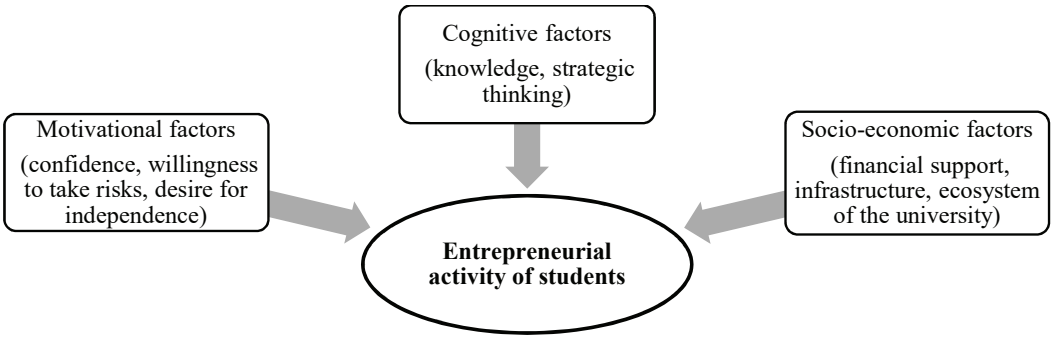

Figure 1: Factors of students' entrepreneurial activity

Cognitive factors include students' knowledge of the principles of entrepreneurship, understanding of market mechanisms, and ability to strategically plan. Research shows that having an entrepreneurial education has a positive effect on the level of entrepreneurial activity, forming students' ability to analyze market opportunities and develop business strategies (Fayolle & Gailly, 2015).

Motivational factors determine the level of students' involvement in entrepreneurial activity. According to the theory of self-determination (Deci & Ryan, 2000), intrinsic motivation plays a key role in shaping entrepreneurial intentions. This is supported by research that reveals that personality characteristics such as self-reliance, independence, and risk-taking have a significant impact on making decisions about starting your own business (Deci & Ryan, 2000).

Socio-economic factors include access to financial resources, university support, and the availability of infrastructure conducive to entrepreneurial activity. Research shows that the university's ecosystem, including startup accelerators, mentoring programs, and collaboration with businesses, promotes student engagement in entrepreneurial activities (Sieger et al., 2016). In addition, the level of economic development of the region and support for entrepreneurship at the state level play an important role in stimulating entrepreneurial activity among students (Audretsch & Belitski, 2017).

In addition to factors, the development of entrepreneurial activity of students is impossible without the formation of a set of competencies, including cognitive, motivational and activity aspects. Entrepreneurial competencies are a set of knowledge, skills and attitudes necessary for the successful implementation of entrepreneurial initiatives in an educational and professional environment. This study examined the key components of these competencies, their role in shaping entrepreneurial thinking among students of pedagogical fields, as well as the factors influencing their development. Table 1 shows the structure of entrepreneurial competencies, considering their aspects and key influencing factors.

Table 1. *The structure of students' entrepreneurial competencies*

Aspect	Content	Influencing factors
Cognitive	Knowledge about entrepreneurship, business models, financial management, innovation	Access to educational programs, case studies, work with business experts
Motivational	Internal and external motivation, professional values, self-confidence	University environment, mentors, examples of successful entrepreneurs
Activity-based	Business skills, project management, negotiations, strategic thinking	Participation in startups, accelerators, business games and entrepreneurial initiatives

The cognitive aspect includes knowledge about entrepreneurship, market mechanisms, the basics of business planning, financial literacy and innovative management methods.

Research shows that students with theoretical knowledge of business and entrepreneurship demonstrate a higher willingness to open their own projects Neck & Corbett (2018). The cognitive aspect also encompasses the ability to analyze market trends, assess risks, and find innovative solutions to implement business ideas (Bae et al., 2014).

The motivational aspect is determined by internal and external incentives for entrepreneurial activity. According to the theory of achievement motivation, a high level of motivation to achieve success is a key predictor of entrepreneurial activity. In addition, the theory of self-determination (Deci & Ryan, 2000) points to the importance of autonomy, competence, and engagement in an entrepreneurial environment.

The activity aspect is related to the formation of practical skills, including the ability to develop business ideas, project management, negotiation and strategic decision-making. According to the concept of "learning through action" (Kolb, 2015), it is practical experience that forms the basis for the development of entrepreneurial competencies. Research shows that students' participation in startup accelerators, business incubators, and entrepreneurial projects helps them acquire the necessary skills and confidence in their capabilities (Rasmussen & Sørheim, 2006).

Now we turn to the results of studying various theories of entrepreneurial education. Table 2 shows the key theories, their key elements are indicated, the possibilities of their application in universities and the expected results are described.

Table 2. *Application of entrepreneurship theories in the university's educational environment*

Theory	Key elements	Application in the educational environment	Expected results
The theory of entrepreneurial opportunities (Shane & Venkataraman, 2000)	Identification of market opportunities, use of resources, innovation.	Training students in analytical skills; organizing projects to find market opportunities, startup accelerators; developing business cases.	Enhancing students' ability to analyze the market and develop innovative solutions.
Theory of social capital (Burt, 2000)	Social networks, networking, access to resources.	Creation of student clubs; organization of events for professional contacts: master classes with business experts, networking events.	Expanding the network of professional contacts of students, improving cooperation skills.
Theory of self-determination (Deci & Ryan, 2000)	Autonomy, competence, social connectedness.	Involving students in decision-making; supporting their independence; organizing student initiatives and research projects.	Increasing the level of motivation and independence of students.
Theory of entrepreneurial competence (Lv et al., 2021)	Competence development through practical training, business planning, mentoring.	Creation of mentoring programs; training in the creation of startups; holding business plan contests; development of practical cases.	Strengthening students' confidence in the implementation of ideas, developing analytical and leadership skills.
Theory of achievement motivation (McClelland, 1985)	Setting goals, striving for success, overcoming obstacles.	Organization of business plan contests, student Olympiads, scientific conferences; involvement of students in research initiatives.	Improving professional competence and willingness to overcome challenges.
Theory of resilience (Ungar, 2013)	Resilience, adaptation to difficult conditions, use of social resources.	Organization of a sustainability development program, stress management trainings, and social support programs.	Increasing students' stress tolerance and ability to cope with academic and life challenges.
Theory of Planned Behaviour (Ajzen, 1991)	Intentions, control of behavior, subjective norms.	Development of courses for the assessment and management of entrepreneurial intentions; training in business planning, assessment of market opportunities.	Increasing the proportion of students interested in starting their own companies.

Entrepreneurial Opportunity Theory (Shane & Venkataraman, 2000) considers entrepreneurship as a process of identifying, evaluating, and exploiting opportunities resulting from changes in the environment. This theory is based on the claim that not all people are able to recognize entrepreneurial opportunities, as it depends on their level of knowledge, experience, and individual characteristics. In the context of university education, this theory can be applied to develop students' pedagogical skills to analyze educational trends, identify promising niches, and develop innovative solutions to improve the education system. In universities, this is realized through courses on the analysis of market opportunities in education, design laboratories where students learn to develop educational initiatives, and acceleration programs for pedagogical startups. The inclusion of this theory in the educational process allows future teachers to master the methods of generating ideas, forecasting educational trends and using innovative technologies in teaching.

The theory of social capital (Burt, 2000) focuses on the importance of social connections and networking in the development of entrepreneurial activity. In an entrepreneurial context, social capital plays the role of a source of information, resources, and support, which is especially important for aspiring entrepreneurs. In universities, this theory can be implemented through the development of student communities, educational collaborations and interaction with external partners. The inclusion of the principles of social capital theory in the educational environment contributes to the creation of a network of professional contacts among students, helps them interact with successful entrepreneurs in the field of education, as well as develop teamwork and collaboration skills. Universities can implement mentoring programs, organize business networking events, and encourage students to participate in interuniversity educational projects.

Self-determination theory (Deci & Ryan, 2000) emphasizes the importance of intrinsic motivation and psychological autonomy in educational and professional development. According to this theory, three basic human needs–autonomy, competence, and social inclusion–are the main driving forces of behavior. In the educational environment, the application of this theory implies the creation of conditions conducive to the development of students' internal motivation for entrepreneurial activity. Universities can provide students with more freedom in choosing academic disciplines and study formats, and support initiatives aimed at developing and implementing their own educational projects. It is also important to integrate project-based learning, which allows students to see the real results of their work and build self-confidence.

The theory of entrepreneurial competence (Lv et al., 2021) considers entrepreneurial skills as a key element of successful professional activity. She suggests that entrepreneurship education should focus not only on knowledge transfer, but also on the development of practical competencies such as leadership, strategic thinking, the ability to innovate and risk management. In the educational environment, this theory is implemented through the introduction of practice-oriented courses, the creation of business incubators, startup competitions, and the formation of interdisciplinary teams to develop educational solutions. In addition, universities can develop entrepreneurial competence through interaction with the education industry, internships, and student participation in real-world educational projects.

The theory of Achievement Motivation (McClelland, 1985) explains how striving for success, overcoming obstacles, and setting ambitious goals affect a person's professional activities. According to this theory, people with high achievement motivation tend to be independent, look for difficult tasks and are focused on results. In an educational environment, the introduction of this theory may include the creation of a system of educational challenges – contests, Olympiads, and research projects aimed at developing students' entrepreneurial potential. An important aspect is the development of individual educational routes that allow students of pedagogical fields to

apply their knowledge in real projects, building self-confidence and developing professional responsibility.

The theory of resilience (Ungar, 2013) emphasizes the importance of resilience and adaptability in the face of uncertainty and crisis situations. In an entrepreneurial environment, the ability to resist helps to cope with risks, overcome difficulties and adapt to changing conditions. In the educational context, this theory is especially important for the training of future teachers, since their professional activities require flexibility, stress tolerance and the ability to find non-standard solutions. Universities can apply this theory through the inclusion of stress management, adaptive strategies, and critical thinking courses in their curricula. Case studies are also effective, where students analyze real educational situations and develop solutions to overcome problematic situations.

The theory of planned behaviour (Ajzen, 1991) is based on the concept of planned behavior, according to which entrepreneurial intentions are formed under the influence of subjective norms, personal attitudes and perceived control over the situation. This theory helps to understand what factors contribute to students' decision to engage in entrepreneurial activity. In an educational environment, the introduction of this theory may include the diagnosis of students' entrepreneurial intentions, the development of mentoring programs and decision-making training. Universities can use gamification methods, include elements of business simulations and experimental learning, so that students can try on the role of entrepreneurs in the field of education and consciously approach the issue of creating their own projects.

Thus, the analysis of the presented theories allows us to conclude that for the formation of entrepreneurial activity of students of pedagogical fields, a combination of various approaches aimed at the development of cognitive, motivational and activity competencies is necessary. By integrating these theories into the educational process, universities can create a favorable ecosystem for students to develop entrepreneurial thinking, self-confidence, and willingness to implement innovative educational projects.

Conclusion. The study of the theoretical foundations of the development of entrepreneurial activity in university education has made it possible to identify key concepts and models that contribute to the formation of necessary competencies among students of pedagogical fields. The analysis of various theories has shown that entrepreneurial activity is a multilevel phenomenon, including cognitive, motivational and activity aspects. The most important factors influencing the development of entrepreneurial competencies are access to educational resources, motivation, university support, and opportunities for practical implementation of entrepreneurial initiatives. The theory of entrepreneurial opportunities occupies a central place in the formation of entrepreneurial activity, emphasizing the need to teach students methods of market analysis, search for innovative solutions and create new educational products. The theory of social capital focuses on the importance of creating network interactions between students, teachers and industry representatives, which promotes knowledge exchange and the expansion of professional contacts. The theory of self-determination demonstrates that in order to actively involve students in entrepreneurial activity, it is necessary to take into account their need for autonomy, competence and social connectedness. The theory of entrepreneurial competence shows that entrepreneurship training should combine theoretical knowledge and practical application through participation in startups, business simulations and interdisciplinary projects. The theory of achievement motivation confirms that the purposeful development of ambition, perseverance and striving for success is a key factor in the formation of entrepreneurial competencies. The theory of resilience emphasizes the importance of stress tolerance and flexibility, which is especially relevant for future educators working in an environment of uncertainty. Finally, the theory of planned behaviour helps to understand what factors shape students' attitudes and intentions necessary to choose an entrepreneurial path.

Thus, the analysis of the presented theories made it possible to substantiate the need for an integrated approach to the development of entrepreneurial activity of students of pedagogical fields. Universities should integrate interdisciplinary approaches into the educational process, focused on the development of analytical, creative and managerial skills. This will allow future teachers not only to effectively adapt to changes in the educational sphere, but also to become initiators of innovations, creating new pedagogical practices, educational projects and startups. The results of the study emphasize the importance of a strategic review of university educational programs, taking into account the entrepreneurial component, which will provide graduates of pedagogical fields with not only knowledge, but also readiness to actively participate in the transformation of the education system.

References

Ajzen, I. (1991). The theory of planned behavior, organizational behavior and human decision processes. *Theories of Cognitive Self-Regulation.* 50 (2). 179-211. ISSN 0749-5978, https://doi.org/10.1016/0749-5978(91)90020-T

Audretsch, D. B., & Belitski, M. (2017). Entrepreneurial ecosystems in cities: Establishing the framework conditions. *JTechnol Transf*. 42. 1030–1051. https://doi.org/10.1007/s10961-016-9473-8

Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The Relationship between Entrepreneurship Education and Entrepreneurial Intentions: A Meta–Analytic Review. *Entrepreneurship Theory and Practice*, 38(2), 217-254. https://doi.org/10.1111/etap.12095.

Boldureanu, G., Ionescu, A., Bercu, A., Bedrule-Grigoruță, M., & Boldureanu, D. (2020). Entrepreneurship Education through Successful Entrepreneurial Models in Higher Education Institutions. *Sustainability*, 12, 1267. https://doi.org/10.3390/su12031267

Burt, R. S. (2000). The network structure of social capital. *Research in Organizational Behavior*, 22, 345–423. https://doi.org/10.1016/S0191-3085(00)22009-1

Cui, J., Sun, J., & Bell, R. (2019). The impact of entrepreneurship education on the entrepreneurial mindset of college students in China: The mediating role of inspiration and the role of educational attributes. *The International Journal of Management Education*. 19 (1). ISSN 1472-8117, https://doi.org/10.1016/J.IJME.2019.04.001

Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry,* 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Fayolle, A. and Gailly, B. (2015). The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention: Hysteresis and Persistence. *Journal of Small Business Management*, 53, 75-93. https://doi.org/10.1111/jsbm.12065

Gartner, W. B. (1988). "Who is an entrepreneur?" is the wrong question. *American Journal of Small Business*, 12(4), 11-32. https://doi.org/10.1177/104225878801200401

Hahn, D., Minola, T., Bosio, G., & Cassia, L. (2020). The impact of entrepreneurship education on university students' entrepreneurial skills: a family embeddedness perspective. *Small Business Economics.* https://doi.org/10.1007/s11187-019-00143-y

Kathayat, B. (2022). Skill Acquisition and Entrepreneurship Development: Evidence from Business Students. *Journal of Nepalese Management and Research.* https://doi.org/10.3126/jnmr.v4i1.52783

Kolb, D. A. (2015). Experiential learning: Experience as the source of learning and development (2nd ed.). *Pearson Education.*

Lv, Y., Chen, Y., Sha, Y., Wang, J., An, L., Chen, T., Huang, X., Huang, Y., & Huang, L. (2021). How Entrepreneurship Education at Universities Influences Entrepreneurial Intention: Mediating Effect Based on Entrepreneurial Competence. *Frontiers in Psychology*, 12. https://doi.org/10.3389/fpsyg.2021.655868

McClelland, D. C. (1985). Human Motivation. *Cambridge University Press.*

Neck, H. M., & Corbett, A. C. (2018). The Scholarship of Teaching and Learning Entrepreneurship. *Entrepreneurship Education and Pedagogy*, 1, 8-41. https://doi.org/10.1177/2515127417737286

Rasmussen, E., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation,* 26 (2), 185-194. ISSN 0166-4972, https://doi.org/10.1016/j.technovation.2005.06.012

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217–226. https://doi.org/10.5465/amr.2000.2791611

Shaw, S., & Perez, M. (2023). Exploring the Impact of Incorporating Entrepreneurial Activities in Higher Education. *2023 IEEE Frontiers in Education Conference (FIE),* 1-10. https://doi.org/10.1109/FIE58773.2023.10343029

Sieger, P., Gruber, M., Fauchart, E., & Zellweger, T. (2016). Measuring the social identity of entrepreneurs: Scale development and international validation. *Journal of Business Venturing*. 31. 542-572. https://doi.org/10.1016/j.jbusvent.2016.07.001

Ungar, M., Ghazinour, M., & Richter, J. (2013). Annual Research Review: What is resilience within the social ecology of human development?. *Journal of child psychology and psychiatry, and allied disciplines,* 54 (4), 348-66. https://doi.org/10.1111/jcpp.12025

Zainullina, S., Vorob'eva, E., Ozerova, N., & Korovkina, A. (2024). The development of entrepreneurial skills of students as a factor of economic development: Strategies and Teaching Methods. *Moscow economic journal*. 5, 333-342. https://doi.org/10.55186/2413046X_2024_9_5_252

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EDUCATIONAL PRACTICE OF DEVELOPING INTERCULTURAL COMMUNICATION IN HIGHER EDUCATION

Abstract

This study examines the educational practices for developing intercultural communication competencies in higher education institutions within the context of unprecedented global interconnectedness. Contemporary higher education environments, characterized by increasing international student mobility and digital connectivity, present both significant opportunities and challenges for intercultural engagement. The research investigates pedagogical approaches that facilitate effective intercultural communication skills acquisition among university students, analyzing their impact on cultural identity formation and preservation. Through a mixed-methods approach combining survey data from master's students (n=44) and theoretical framework analysis, this paper identifies key challenges in cross-cultural educational settings and proposes evidence-based interventions. Findings indicate that establishing dedicated intercultural communication centers, implementing culturally responsive teaching methodologies, and developing comprehensive assessment criteria significantly enhance students' intercultural competence. The study contributes to the scholarship on educational innovation by demonstrating how structured pedagogical practices can foster intercultural skills while simultaneously preserving cultural diversity. This research has implications for curriculum development, institutional internationalization strategies, and educational policy in multicultural higher education contexts.

Keywords: intercultural communication, higher education pedagogy, cultural identity, educational innovation, globalization, assessment criteria, intercultural competence.

Introduction. Cultural identity has been a focal point in social sciences, especially within the fields of communication and social psychology. Extensive research has explored cultural identity, both directly and indirectly, providing diverse perspectives on its impact on intercultural contexts and inspiring methods for its study. Cultural identity, a multifaceted construct encompassing shared beliefs, values, traditions, and practices, plays a pivotal role in shaping individual and collective identities within societies (Schildkraut, 2011). The researcher Schildkraut (2011) also believed that it evolves through time and interactions with others while being influenced by historical, social, and environmental factors. Intercultural communication, on the other hand, involves the practic and exchange of ideas, information,

and cultural practices among individuals from different cultural backgrounds (Chen & Starosta, 2000). These exchanges occur through various channels, including face-to-face interactions (whether in-person or online), media, and digital platforms, facilitating encounters that transcend geographical boundaries.

As societies' diversity is becoming more complex and affecting all aspects of life, understanding how intercultural communication impacts individuals and groups' cultural identities is paramount. With the influence of critical intercultural communication and the introduction of global DEI in international education, it is also important to include the role played by historical discrimination and social justice in intercultural interactions.

Intercultural communication is often perceived and studied from a positive lens including cultural awareness, promoting empathy towards different cultural perspectives, and encouraging the integration of diverse cultural elements into individuals' identities (Browne, 2014) in opposition to division and isolation. However, teaching intercultural communication also presents challenges and misunderstandings. Challenges such as cultural dilution, identity conflicts, and the rise of power imbalances, highlighting the need for strategical approaches for learning to navigate these complexities effectively (Appadurai, 1996; Jackson, 2016). The other aspect that is often disregarded are the cultural frameworks used to teach intercultural communication such as Hofstede's (1980) cultural dimensions theory, re-actualized by Molinsky (2013) and Meyer (2014) focus on dominant white and/or national cultures leaving asides all the counter cultures that also contribute to the richness of the national cultures.

This article spans current research to inform the ways in which intercultural communication influences cultural identity in a globalized context. By exploring both theoretical frameworks and empirical studies, we aim to provide insights into how our societies can harness the positive aspects of intercultural communication while addressing its challenges to promote and expand globally inclusive cultural exchanges while nourishing the richness of cultural diversity. Specifically, it seeks to explore the question of "How does intercultural communication impact individual cultural identity?" The examination of current practices, challenges, and opportunities, provides valuable insights and practical strategies for anchoring intercultural competence in global DEI.

Theoretical Frameworks and Conceptualizations

Intercultural communication is framed within various theoretical perspectives that explore its implications for cultural identity (individual and collective). One prominent framework is the cultural identity theory, which posits that identity is shaped through interactions with others and is fluid rather than fixed (Schildkraut, 2011). Identity negotiation theory emphasizes the dynamic process individuals undergo when reconciling multiple cultural affiliations and identities in diverse social contexts (Kim, 2001).

The study of intercultural communication and its impact on cultural identity is a critical area of inquiry in contemporary social sciences. Intercultural communication theories such as Bennett's Developmental Model of Intercultural Sensitivity or Hofstede's Cultural Dimensions and Critical Intercultural Communication are worth to mention here. However, it is important to share that these theories are voices representing the global north focusing on dominant, white and/or national cultures. Hofstede's theory revamped by Molinsky (2013) or Meyer (2014) is only focusing on the dominant national cultures omitting counter-cultures that are guiding the formation and consolidation of marginalized and historically oppressed groups. Bennett's model, although useful to understand and assess our individual cultural journey, also views culture through national dominant lenses encouraging the individuals surveyed to evolve through intercultural competence stages anchored in western standards.

Bennett's Developmental Model of Intercultural Sensitivity (DMIS)

Milton J. Bennett's Developmental Model of Intercultural Sensitivity (DMIS) describes the stages individuals progress through as they develop intercultural competence. The model

is divided into ethnocentric and ethnorelative stages, which reflect increasing sensitivity to cultural differences. Bennett's DMIS is widely utilized to understand how individuals' perceptions of cultural differences evolve and affect their intercultural communication skills and cultural identities (Bennett, 2013).

Hofstede's Cultural Dimensions

Geert Hofstede's Cultural Dimensions Theory, although questionable through a global DEI lens, has been foundational for understanding how cultural values of dominant cultures shape behavior and communication. Hofstede identified six dimensions that distinguish cultures:

- Power Distance: Degree to which power inequality is accepted.
- Individualism vs. Collectivism: The importance of individual versus group goals.
- Masculinity vs. Femininity: Distribution of gender roles.
- Uncertainty Avoidance: Comfort with ambiguity and uncertainty.
- Long-Term vs. Short-Term Orientation: Focus on future rewards versus past and present.
- Indulgence vs. Restraint: The degree to which gratification of desires is allowed.

Hofstede's framework analyzes how cultural values impact communication styles and identity formation. For example, in high power distance cultures, hierarchical communication patterns can significantly influence individuals' cultural identities (Hofstede, Hofstede, & Minkov, 2010).

Critical Intercultural Communication

Critical Intercultural Communication examines the power dynamics and socio-political contexts that influence intercultural interactions. This approach challenges traditional methods by emphasizing the importance of power relations, historical contexts, and social justice in the study of intercultural communication. It argues that cultural identity is fluid and constantly negotiated through interactions shaped by power and inequality. (Li, 2015)

Furthermore, critical intercultural scholars advocate for approaches that understand cultural differences while addressing issues of oppression, privilege, and marginalization. This perspective offers a more nuanced understanding of how cultural identities are formed and reformed in intercultural contexts (Halualani & Nakayama, 2010).

Recent studies have continued to expand and refine these theoretical frameworks. For example, research by Deardorff (2016) emphasizes the importance of intercultural competence in global education, highlighting how the development of intercultural competence can lead to more effective intercultural communication and a more profound understanding of cultural identity. Additionally, Spitzberg and Changnon (2020) have explored the role of intercultural communication competence in mitigating conflict and fostering positive intercultural relationships.

In the context of Hofstede's dimensions, recent analyses by Beugelsdijk, Kostova, and Roth (2017) have revisited and critiqued the framework, suggesting modifications to better reflect contemporary cultural dynamics. Similarly, advancements in social identity theory have been discussed by Hornsey (2008), who explores the theory's application in diverse cultural settings and its implications for understanding intercultural communication.

Above mentioned theoretical frameworks such as Bennett's Developmental Model of Intercultural Sensitivity, Hofstede's Cultural Dimensions and Critical Intercultural Communication provide comprehensive insights into the complex interplay between intercultural communication and cultural identity from a western perspective. These frameworks underscore the dynamic nature of cultural identity, emphasizing adaptation, negotiation, and transformation in intercultural contexts. By leveraging and rethinking these theories from various lenses, educators and scholars, and practioners can better navigate and facilitate intercultural communication, fostering a more inclusive and culturally sensitive environment.

Materials and Methods. Cultural identity encompasses the shared beliefs, values, norms, and practices that define a group or community. It is a dynamic construct shaped by historical, social, and personal factors, continually evolving through interactions within and beyond

one's cultural boundaries (Schildkraut, 2011). Individual, group, and generational traumas that are transmitted from one generation to the next are also included. Globalisation and the development of communication technology have made it easier for people from many cultural backgrounds to share ideas, information, and cultural practices. This phenomenon is known as intercultural communication. (Ting, S.T. & Chung, L.C., 2012).

Intercultural communication plays a pivotal role in shaping cultural identity amidst global diversity. Ron Darvin and Tongle Sun (2024) emphasized the significance of understanding how individuals position themselves and are positioned by others in intercultural encounters, highlighting the discursive construction of identity through various lenses such as social psychological, poststructuralist, and critical perspectives.

Effective intercultural communication is essential for sharing information, ideas, and emotions across diverse cultural backgrounds, ultimately influencing language learning processes and reshaping communication norms in a globalized world (Süleyman Gün & Yavuz, 2023). Studies stress the need to preserve cultural identity by intervening through educational strategies to mitigate cultural homogenization and prevent the loss of minority groups' cultural identity (Zhu et al., 2022).

Furthermore, exploring cultural factors in language teaching, such as Chinese courses, can enhance students' understanding and appreciation of different cultures, fostering a sense of shared humanity and community. (Zhu et al.,2022). Additionally, analyzing the representation of cultural identity in intercultural communication among political science students underscores the dominance of cultural identity over ethnocentric views, showcasing the influence of stereotypes and biases in intercultural interactions (Kotova et al., 2024).

Research has shown that the positive impact of intercultural communication on cultural identity. Kraftl (2013) and Chen & Starosta, (2000) discussed cultural awareness and appreciation. Kraftl (2013) claimed that people are exposed to a variety of cultural viewpoints through intercultural communication, which develeops empathy and compassion for other lifestyles. Intercultural communication exposes individuals to diverse cultural perspectives, fostering empathy and understanding towards different ways of life. According to Chen & Starosta (2000) Such exposure can foster respect for the cultures of others while also enhancing people's appreciation of their own cultural history.

The concept of identity enrichment through hybridity was examined by Browne (2014). According to him, crosscultural interactions arise when cultural components come into contact and transform into new hybrid identities with a variety of influences. In addition to enhancing and broadening people's cultural awareness, cultural hybridity fortifies their sense of self. Deardorff (2016) stated that navigating cultural differences in a sensitive and respectful way can also result in effective intercultural interactions and communication and that such ability supports the understanding of multicultural environments mitigating cultural divides.

Appadurai (1996), on the other hand, investigated cultural dilution and loss through intercultural communication. He argued that globalization and ubiquitous intercultural communication can potentially lead to the dilution or loss of traditional cultural practices and languages. A concern he directed to younger generations who may prefer the adoption of dominant cultural norms over the ones of their communities.

Another concern is identity negotiation and conflict. Intercultural communication can lead to identity conflicts. Indeed, Jackson (2016) pointed out that navigating multiple cultural environments or experiencing a variety of cultural expectations can challenge their sense of self. Such conflicts highlight the complex nature of cultural identity formation in diverse social and cultural contexts.

Hall (1990) explored power dynamics and marginalization. He indicated that unbalanced power relations in intercultural interactions can lead to the marginalization of minority cultures reinforcing dominant cultural norms and potentially impoverishing cultural diversity

and limiting opportunities for equitable cultural exchange.

To effectively navigate and mitigate the challenges of intercultural communication on cultural identity, several strategies can be employed, drawing upon insights from recent research and scholarly literature.

First, promoting cultural understanding and sensitivity are crucial. By enhancing individuals' awareness of cultural differences and encouraging an open and empathetic approach towards diverse perspectives, can result in the creation of environments where cultural identities are respected and valued (Deardorff, 2006). Training programs and workshops that emphasize cultural awareness and effective communication strategies can equip individuals with the skills needed to navigate intercultural interactions sensitively and respectfully (Chaudhary, 2022).

Secondly, fostering inclusive practices and policies is also important to establish equitable power between cultures, consequently reducing the risk of cultural marginalization. Implementing inclusive policies that focus on cultural diversity within organizations and communities encourages a sense of belonging among individuals from different cultural backgrounds (Jackson, 2016). Creating platforms for diverse voices to be heard and actively involving marginalized groups in decision-making processes is another tools to empower individuals to express their cultural identities authentically while promoting equitable cultural exchange. (Chaudhary, 2022).

Lastly, promoting intergroup contact and collaboration can facilitate mutual understanding and bridge cultural divides. Pettigrew and Tropp's (2006) research indicates that creating opportunities for groups to engage in positive interactions can reduce prejudice and promote intercultural harmony. They added that Encouraging cross-cultural collaborative projects with shared goals between diverse communities can foster meaningful relationships. Such initiatives not only enhance cultural understanding but also contribute to the preservation and enrichment of cultural identities in a globalized world.

By implementing these strategies, societies can proactively address the challenges of intercultural communication on cultural identity, creating inclusive environments where diversity is celebrated, and cultural heritage is preserved.

Intercultural Communication in the Context of Globalization in Kazakhstan

Globalization has had a deep impact on shaping intercultural communication around the world, and Kazakhstan is no exception. As a country situated at the crossroads of Europe and Asia, Kazakhstan has experienced increasing global interactions while undergoing profound changes in its social, economic, and cultural landscapes. With a population comprising ethnic Kazakhs, Russians, Uzbeks, Ukrainians, and various other groups, Kazakhstan has long been a center of intercultural exchanges. The Soviet era further shaped its cultural dynamics by promoting Russian language and culture, while post-independence efforts have emphasized the revival of Kazakh language and traditions (K. Dzhunushaliev, 2019).

Economic development, media and technological advancement, and educational mobility have intensified cultural exchanges impacting intercultural communication in Kazakhstan.

M. Kenzhebekov and A. Mukhambetkaliyeva (2021) examined Kazakhstan's economic development highlighting that the influx of multinational corporations and foreign investments has led to increased interaction between Kazakhs and people from various cultural backgrounds. The resulting opportunities for cross-cultural business communication and collaboration also introduced challenges in managing cultural differences (Kenzhebekov M. & Mukhambetkaliyeva A., 2021).

Abdykarimova (2020) noticed that the proliferation of digital media and communication technologies. A growth that facilitated global communication, allowing Kazakhs to engage with other cultures and ideas more intuitivel while posing the risk of cultural homogenization and the erosion of local traditions.

Mukhametova (2018) explore students mobility underscoring, the growth of student exchange between Kazakhstan and the rest of

the world and the crucial role of educational institutions in fostering intercultural understanding.

The listed intercultural benefits need to be evaluated along with the multifaceted intercultural communication challenges in Kazakhstan. Despite the country's official Kazakh and Russian bilingualism, language differences can still create obstacles in business and educational settings (Omarova, 2017). Cultural norms and practices are also at the heart of misunderstandings and conflicts, reinforcing the need for individuals and organizations to develop their cultural understanding (Nazarbaev, 2019). Moreover, globalization's influence on cultural exchange raises concerns about preserving Kazakh cultural identity and heritage (Aytzhanova, 2022). The national challenge is to accommodate global influences while preserving and nurturing local traditions.

Effective intercultural communication can be achieved through several strategies. First, implementing cultural training programs for individuals and organizations is crucial, as these programs enhance intercultural competence and improve communication across cultures (Kassenova, 2021). Second, encouraging multilingualism and providing language training are essential for bridging communication gaps and facilitating smoother interactions (Tulegenova, 2019). Third, promoting cultural awareness through initiatives that foster appreciation of diverse cultures further contributes to creating a more inclusive and harmonious intercultural environment (Samatov, 2020). These combined approaches collectively support the navigation and improvement of cross-cultural exchanges.

Globalization intensifying intercultural communication in Kazakhstan, offers both opportunities and challenges. To benefit from these intercultural interactions and enhance Kazakhstan's global engagement while leveraging its diverse heritage, it is crucial to address language barriers, develop cultural sensitivity, and preserve cultural identity. Solutions could be a greater focus on education and training intercultural awareness.

This study examines how intercultural communication impacts cultural identity. The survey population involved forty-four master's students from non-linguistic majors. A central theme of this study is the effect of cultural identity within a globalized environment, as well as the encouragement and enhancement of inclusive cultural exchanges that enrich cultural diversity.

The primary tool for data collection in this research was a survey designed for the purpose of this research. This survey features Likert-scale questions with six response options (ranging from 1 to 6), (Table 1). Additionally, we included three open-ended questions: 1) What measures do you think can help improve intercultural communication and global diversity management? 2) Do you feel that intercultural communication enriches your cultural identity? 3) What measures do you think can help improve intercultural communication and global diversity management? We administered this survey to master's students to assess whether existing practices, challenges, and opportunities can yield valuable insights and practical strategies for promoting intercultural competence within a diverse global context. The findings from the survey will allow researchers to investigate whether cultural interactions are increasing and how they can be understood as intercultural communication.

Table 1. *Descriptive statistics of the survey*

Questions	# of responses	Mean	Min	Max	Std. Deviation
1. How often do you interact with people from other cultures in your daily life?	43	1.84	0	4	1.06
2. To what extent does intercultural communication affect our cultural identity?	43	1.57	0	3	0.82
3. Do you feel that intercultural communication enriches your cultural identity?	44	2.15	0	4	1.13

4. What aspects of your cultural identity do you think have changed due to cross-cultural communication?	44	1.00	0	2	0.75
5. In your opinion, what is the importance of preserving cultural identity in the context of global diversity?	44	1.31	0	2	0.52
6.Have you ever encountered difficulties in cross- cultural communication? If so, what were the difficulties?	44	1.50	0	3	0.91
7. What measures do you think can help improve intercultural communication and global diversity management?	44	1.00	0	2	0.75
8. What is your experience in participating in intercultural projects or even events?	44	2.03	0	3	0.83
9. How would you rate your willingness to work in a multinational team?	44	1.89	0	3	0.83

Discussion. The data collected suggest that many participants experience significant difficulties in navigating interactions across different cultures. By addressing these issues, we aim to enhance intercultural communication skills, which are essential for fostering understanding and collaboration in a diverse global environment. Implementing these recommendations could lead to improved outcomes in both personal and professional contexts, ultimately enriching the experiences of individuals engaging in cross-cultural exchanges.

Consequently, this study provides recommendations for engaging with people from different cultures, particularly for those who do so infrequently in their daily lives, as well as for those who may have a moderate willingness to collaborate in multinational teams. (Zhu et al., 2022). These recommendations are proposed in response to the challenges encountered in cross-cultural communication, as indicated by the mean score of 1.50 and a standard deviation of 0.91. Firstly, establishing an intercultural communication centre is a crucial step toward the university's goals of internationalization and enhancing student experiences (Kurmanayeva & Tazhitova, 2024). This centre can play a significant role in fostering understanding and collaboration among various cultural groups. By emphasizing education, research, and community involvement, the centre can contribute to creating a more inclusive society that appreciates and celebrates cultural diversity.

Secondly, teachers should create a positive atmosphere for teaching to effectively integrate the cultural identity of the material with the cultural identity of the students to improve the educational objectives (Zhu, et al., 2022).

Thirdly, establishing assessment criteria for teaching intercultural communication is essential, as understanding one's own culture and that of the "other," along with cultural awareness, significantly affects the effectiveness of intercultural communication and fosters intercultural competence (Kotova et al., 2024). These criteria offer several advantages. Clearly, effective assessment enhances master's students' learning and aids their comprehension of the course's key objectives. Furthermore, these criteria serve as the framework through which we, as educators, evaluate students' progress. Effective assessment not only enhances student learning but also deepens their understanding of the fundamental goals of Intercultural Communication courses. Finally, these assessment criteria provide a structured approach for us as teachers to measure student learning outcomes effectively.

Conclusion. The findings of this study highlight the pressing need to address the challenges faced in cross-cultural communication. The significant difficulties reported by participants underscore the importance of enhancing intercultural skills to facilitate better understanding and collaboration in our increasingly diverse global environment. By implementing the proposed recommendations, we can create an educational framework that supports individuals in navigating cultural interactions more effectively. Establishing an intercultural communication centre is a pivotal step in this endeavor, aligning with

the university's internationalization objectives while enriching the student experience. This centre can serve as a hub for education, research, and community engagement, fostering a culture that values and celebrates diversity. Moreover, creating a positive learning atmosphere is crucial for integrating cultural identities into the curriculum. This approach not only enhances the educational objectives but also helps students feel more connected and engaged with the material.

Finally, the development of clear assessment criteria for teaching intercultural communication is essential. These criteria will not only aid in evaluating student progress but will also deepen their understanding of the course objectives and improve overall learning outcomes. By focusing on these areas, we can train a generation of students who are well-equipped to thrive in multicultural settings, ultimately contributing to a more inclusive and harmonious society. However, the present study is limited in several ways. The sample was limited to only one institution, and consequently, the results may not be generalizable to other institutions. Nonetheless, these findings are valuable for the institution itself, as they can help in maintaining, developing, or creating intercultural programs for students. Additionally, as the study relied on self-reported answers from participants, there are inherent biases that could have affected the results. These limitations should be considered when interpreting the findings. The findings of this study reveal that while intercultural communication is recognized as an important aspect of cultural identity, many students perceive it as having a limited impact on their own cultural experiences. The data highlight areas for potential development, particularly in enhancing the understanding and skills necessary for effective intercultural communication. Further research may explore specific challenges and effective strategies to foster deeper engagement in this critical area.

References

Abdykarimova, M. (2020). Vliyanie cifrovyh media na kulturnuyu identichnost v Kazahstane [The impact of digital media on cultural identity in Kazakhstan]. Almaty: Izdatelstvo Kazakstanskogo universiteta – Almaty: Kazakh University Press [In Russian]

Appadurai, A. (1996). Modernity at large: Cultural dimensions of globalization. University of Minnesota Press

Aytzhanova, D. (2022). Sohranenie kultury v usloviyah globalizacii: kejs Kazahstana [Cultural preservation amid globalization: A case study of Kazakhstan]. Astana: Izdatelstvo Universiteta Astany -Astana: University of Astana Press [In Russian]

Bennett, M. J. (2013). Developing intercultural sensitivity: An integrative approach to global learning. In M. K. McCauley & E. A. Lombardi (Eds.), Education for global citizenship (pp. 77-90). Routledge

Beugelsdijk, S., Kostova, T., & Roth, K. (2017). An exploration of national cultural differences in the Hofstede framework. J*ournal of International Business Studies*, 48(1), 114-130. https://doi.org/10.1057/s41267-017-0070-1

Browne, K. (2014). Intercultural communication: A critical introduction. Palgrave Macmillan

Chaudhary, A. & Green A. (2022). Interculturalization at the Center of Global DEI Efforts. *Journal of Diversity Abroad(2)*1

Chen, G. M., & Starosta, W. J. (2000). Foundations of intercultural communication. In W. J. Starosta & G. M. Chen (Eds.), Intercultural communication: A reader (pp. 3-15). Wadsworth

Darvin, R., & Sun, T. (2024). The discursive construction of identity in intercultural encounters. *Journal of Language and Identity,* 30(1), 1-20. https://doi.org/10.1016/j.jli.2024.02.001

Deardorff, D. K. (2006). The identification and assessment of intercultural competence as a student outcome of internationalization. Journal of Studies in International Education, 10(3), 241-266. https://doi.org/10.1177/1028315306286938

Deardorff, D. K. (2016). Assessment and evaluation of intercultural competence: A guide for educators. *Journal of International Education in Business*, 9(2), 139-155. https://doi.org/10.1108/JIEB-02-2016-0006

Dzhunushaliev, K. (2019). Kulturnyj landshaft Kazahstana: istoricheskie i sovremennye perspektivy [Kazakhstan's cultural landscape: Historical and contemporary perspectives]. Bishkek: Kyrgyzstanskaya akademicheskoe izdatel'stvo – Bishkek: Kyrgyzstan Academic Publishing. [In Russian]

Hall, S. (1990). Cultural identity and diaspora. In J. Rutherford (Ed.), Identity: Community, culture, difference (pp. 222-237). Lawrence & Wishart

Halualani, R. T., & Nakayama, T. (2010). The handbook of critical intercultural communication. Wiley-Blackwell

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). Cultures and organizations: Software of the mind (3rd ed.). McGraw-Hill

Jackson, J. (2016). Introducing language and intercultural communication. Routledge.

Kassenova, G. (2021). Training for intercultural competence: A guide for Kazakhstan. Almaty: Central Asia Publishing

Kim, Y. Y. (2001). Becoming intercultural: An integrative theory of communication and cross-cultural adaptation. Sage

Kotova, N. S., et al. (2024). Stereotypes in intercultural communication among political science students. *Journal of Political Communication*, 39(3), 314-331. https://doi.org/10.1080/10584609.2024.1172367

Kraftl, P. (2013). Cultures of empathy: A critical reflection on the nature of intercultural communication. I*ntercultural Communication Studies*, 22(2), 1-14

Kurmanayeva, D., & Tazhitova, G. (2024). Assessment criteria as a way of overcoming the difficulties in completing self-assignments: A case at ENU. *Journal "Pedagogy and Psychology"*, 59(2), 81-90, https://doi.org/10.51889/2960-1649.2024.59.2.006

Li, Y. Cultural Identity in Intercultural Communication. *Social Sciences*

Meyer, E. (2014). The culture map: Breaking through the invisible boundaries of global business. PublicAffairs

Milton, A. (2013). Global dexterity: How to adapt your behavior across cultures without losing yourself in the process. Harvard Business Review Press

Mukhametova, A. (2018). Education and international mobility in Kazakhstan: Trends and perspectives. Astana: Kazakh Education Journal

Nazarbaev, N. (2019). Cultural sensitivity in the global era: The Kazakh experience. Almaty: National University Press

Omarova, S. (2017). Language dynamics and intercultural communication in Kazakhstan. Bishkek: Academic Press

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751-783. https://doi.org/10.1037/0022-3514.90.5.751

Samatov, B. (2020). Fostering cultural awareness in Kazakhstan: Strategies and practices. Astana: Culture and Society Publications.

Schildkraut, D. J. (2011). The importance of a multicultural national identity: The role of cultural identity in social integration. *Social Science Quarterly*, 92(5), 1185-1205

Spitzberg, B. H., & Changnon, G. (2020). The role of intercultural communication competence in mitigating conflict. *Journal of Intercultural Communication Research*, 49(1), 17-32. https://doi.org/10.1080/17475759.2020.1787609

Süleyman Gün, Y., & Yavuz, A. (2023). The impact of intercultural communication on language learning. *Journal of Language and Linguistic Studies*, 19(1), 275-290.

Ting, S.T. & Chung, L.C. *Understanding intercultural communication (2012).* New York: Oxford University Press. p. 326

Tulegenova, Z. (2019). Multilingvizm i yazikovaya politika v Kazakhstane. [Multilinguism and language policy in Kazakhstan]. Almaty: Yazik i obshestvennaya presa – Almaty: Language and Society Press [In Russian]

Zhu, Z., Cheng, L., & Fan, Y. (2022). A study on cultural identity in the textbooks of an intercultural communication course. In B. Arnbjörnsdóttir, B. Bédi, L. Bradley, K. Friðriksdóttir, H. Garðarsdóttir, S. Thouësny, & M. J. Whelpton (Eds.), Intelligent CALL, granular systems, and learner data: Short papers from EUROCALL 2022 (pp. 392-398). https://doi.org/10.14705/rpnet.2022.61.1490

Zhu, Z., Li, C., & Fan, Y. (2022). Educational strategies to preserve cultural identity amid globalization. *International Journal of Cultural Studies*, 25(4), 401-417. https://doi.org/10.1177/13678779211013472

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ANALYSIS OF CURRENT ASSESSMENT PRACTICES FOR CHILDREN WITH SPECIAL EDUCATIONAL NEEDS IN THE REPUBLIC OF KAZAKHSTAN

Abstract

This research investigates the current assessment practices for children with special educational needs (SEN) in the Republic of Kazakhstan following the country's transition from a medical model to a socio-educational model. The research examines the recently implemented four-stage assessment system conducted by secondary schools, psychological-medical-pedagogical counselling centers, and rehabilitation centers. A distinctive feature of Kazakhstan's approach is the team-based assessment methodology that mandates participation of subject teachers, special educators, speech therapists, and educational psychologists regardless of location. Notably, specialists select assessment tasks independently based on children's age and educational standards, as the government has not established standardized assessment tools. To evaluate the effectiveness of these practices, we conducted a comprehensive mixed-methods study involving surveys and interviews with professionals actively implementing these assessment procedures. The research sample included 20 psychological, medical and pedagogical councils and 63 secondary schools, with a total of 186 respondents (135 primary school teachers from inclusive education institutions and 51 specialists from psychological, medical and pedagogical councils). Additionally, in-depth interviews were conducted with 30 teachers to obtain more detailed insights. The findings reveal both strengths and limitations of the current assessment practices in Kazakhstan, providing valuable insights into how secondary schools and specialized organizations select and implement assessment methods. This analysis contributes to understanding the practical implementation of the socio-educational model and identifies areas for potential improvement in the assessment system for children with SEN in Kazakhstan.

Keywords: special educational needs assessment, assessment practices, inclusive education, socio-educational model, team-based assessment, Kazakhstan education system.

Introduction. Assessment of special educational needs is becoming a topical issue in Kazakhstan, as the results of the assessment allow to determine the learning path of children with special educational needs and to enable each child to study according to his or her potential. Therefore, the assessment of children's special educational needs in inclusive education in Kazakhstan, based on international conventions, is shifting from a medical model to a social model. The purpose of this article is to examine the effectiveness of the new model assessment system developed in relation to Kazakhstan's transition to a social model of assessment of children with special educational needs. The focus of the inclusive educational environment is on qualitative assessment of students' special needs, defining an educational route in accordance with the results of identification and assessment of children with disabilities, depending on the values and strategies underlying the humane philosophy of educating children with disabilities. The medical model and emphasis on the 'problems' of the child are considered discriminatory and lead to the segregation of children with disabilities. For many years in Kazakhstan, this medical model divided children with special educational needs into 8 groups and educated them in special educational institutions. The assessment was carried out by only one organisation, the Psychological-Medical-Pedagogical Council. Children with special educational needs were directed to special educational institutions on

the basis of a referral issued by that institution. (Yersarina, 2020). The introduction of modern approaches to inclusive practice based on the socio-pedagogical model requires addressing many objectives in the education system. This leads to changes in the content of the activities of not only general education organisations, but also the psychological, medical and pedagogical council. In accordance with the state program of the Presidential Decree on the development of education in 2020-2025, in accordance with other normative legal documents "psychological, medical and pedagogical councils" in transition from medical model to "social-pedagogical" model, it was noted that the activity of PMPC will be reflected in clear direction of children to determine their educational needs" (Strategic Development Plan of the Republic of Kazakhstan, 2025). Also, the 'Law on Education' of the RK states that according to the basic principles of state policy in the field of education everyone has the right to quality education, emphasises the priority of development of the RK education system, takes into account the intellectual development of each person, psychophysiological and individual characteristics, and ensures accessibility of education for all. (Law on Education, Chapter 1, Article 3).

The order of assessment of children with special educational needs is specified in Order No. 4 of 12 January 2022 "On Approval of the Rules for Assessment of Special Educational Needs" of the RK:

1) identification by a teacher (educator) of children with special educational needs in the course of educational process using monitoring of social-emotional well-being of each student (pupil) and features of learning and cognitive activity, as well as criterial evaluation of students' achievements;

2) psychological and pedagogical support with the consent of parents (legal representatives) specialists in-depth study and assessment of special educational needs of children with learning difficulties;

3) psycho-pedagogical support of education organisation based on the results of in-depth examination by specialists further assessment of special educational needs of children with learning difficulties in PMPC;

4) interdisciplinary team assessment of the special educational needs of children in psycho-pedagogical correction offices and rehabilitation centres.

The above evaluation system has been used for about one year from the previous year. In this article, we will discuss the issues with which this assessment system can be put into practice at each stage and that we encounter in practice. As assessment of special educational needs is a complex process and a topical issue, much research work has been carried out on this topic. This is due to the fact that developing a curriculum that focuses on teaching a child according to his or her learning needs is directly linked to carrying out proper assessment work. The importance of assessing the system implemented in RK legislation and special educational needs is confirmed by studies carried out in other countries. In many foreign countries, assessment is carried out by educational psychologists. For example, in Australia the assessment system consists of five stages: data collection, identification the consequences of disability (a special team established in the school ranks the health indicators of students), provision of recommendations for verification, verification (Dr Martin Desforges and Professor Geoff Lindsay, 2010). Australia and Kazakhstan also use team assessment. While in Kazakhstan the team assessment involves the educational psychologist, main subject teachers, special educator and speech therapist, in Australia the team assessment involves the educational psychologist and subject teachers. In both countries, the result of the other specialists' advice may additionally be requested from the other specialists, if necessary.

In Lindsay's 2008 study assessing special educational needs in England, in six studies of local authorities they found that they relied on the expertise of specialist professionals (Lindsay 2008). The regulations prescribe that local authorities request written samples of advice from parents, educational and medical, psychological and social services. It shows that the evaluation takes into account the opinion of

various professionals and is carried out through a team decision in choosing an educational trajectory for specific educational needs. Many standard tasks and formal assessments can be flawed. DeLuca et al. have identified errors that occur during informal assessment of students with complex communication disorders (DeLuca, E. R., Da Fonte, M. A., Boesch, M. C 2022). Therefore, the success of the assessment system is directly related to the content of the tasks used by professionals. ABAS assessment tasks are widely used in many countries. Effective use of the ABAS assessment tool depends on a formal disability assessment system and compatibility of work strategies (Prokopiak, Anna & Kirenko et al., 2020). Although the results of the widely used Ctoni-2 guideline in the United States correctly assessed general intelligence, the relationship between factors was not proven in the dispersion analysis (McGill, R. J, 2016). The Ctoni-2 guide may lead to over-interpretation of this construct measurement tool in geometric and visual measurements when interpreting individual user characteristics (Glutting, Watkins, Konold, & McDermott, 2006), and these measures should be formulated as "pseudofactors" and should not be used for diagnostic decision making. Francis, Y. J., & Sanders, L argue that the four-step collaborative action plan based on the RADIO framework using mixed methods such as SEN data analysis, informal interviews, surveys, observations, and resource reviews undermines the validity of assessment results and suggests that future research should include children's perspectives (Francis, Y. J., & Sanders, L 2022). However, most studies to date are based on research to assess language proficiency or use new assessment tools of children with disabilities, while there is no research on the appropriateness of assessment tools for school-age children from another country. (Hertel, I., Chilla, S., & Ibrahim, L. A 2022). Catts, H. W., et al. provide direct evidence of the necessity of including language measures in the screening of reading disorders (Catts, H. W 2020). They believe that early intervention based on detection of literacy progression in children with such disorders should be provided by determining whether such measures identify learning disabilities. Šafárová et al. believe that the use of new technologies in assessing dysgraphia (writing disorder) yields better results. In their research work they diagnosed the level of children's graphomotor development using a special Wacom Ink Pen on a Wacom Intuos Pro L tablet (Šafárová et al., 2021). A review of the literature shows that there is a lot of controversy around the assessment of SEN and the methods used in it, in this area the possibility of research work and application of new technologies is still to be considered.

Materials and Methods. This study utilized a mixed-methods research design, incorporating both quantitative and qualitative approaches to assess the effectiveness of the evaluation phase. The primary research method was a survey conducted via Google Forms, complemented by in-depth interviews with selected educators. The study was carried out in the Republic of Kazakhstan (RK) and involved 20 specialists from the psychological, medical, and pedagogical council (PMPC) and representatives from 63 secondary schools. A total of 186 respondents participated, comprising 135 elementary school teachers working in inclusive educational environments and 51 specialists from PMPC, including speech therapists, supervisors, educational psychologists, special educators, psychoneurologists, and other specialists. The study was conducted in 2022, capturing a diverse range of professional experiences, with an average respondent work experience of 15-17 years. Data collection was conducted in two stages: first, through an online questionnaire administered to 135 educators, which aimed to gather information about the assessment process, challenges faced, and the impact on students with special educational needs (SEN). The second stage involved structured interviews with 30 educators, providing qualitative insights into the implementation and effectiveness of the assessment methodology. The questionnaire focused on critical aspects of the assessment process, ensuring comprehensive data collection aligned with research objectives. The survey questions adhered to ethical standards, and no additional unrelated information was requested

from participants. To ensure the validity and reliability of the collected data, the questionnaire was developed based on existing validated assessment frameworks and reviewed by experts in inclusive education and educational psychology. A pilot test was conducted before the full-scale survey to refine the questionnaire for clarity and relevance. Consistency in data collection was maintained through standardized interview protocols. The responses were systematically analyzed using simple statistical methods such as calculating percentages, averages, and frequency distributions. The quantitative data collected from the survey were processed manually and summarized in tables and charts for clear visualization. The results from the quantitative analysis provided insights into general trends and patterns within the assessment process, while the qualitative analysis allowed for an in-depth understanding of educators' experiences and perceptions.

Results. According to the system of graded evaluation the main criterion was the successful acquisition of the curriculum, achievement of the goal of the lesson and improvement of academic achievement. The successful achievement of the goals set for the individual development program was also taken into consideration. Progress of 249 students in an inclusive environment was analyzed here based on the identified post-assessment curriculum. As a result, it was found that among the children with SEN, 21 children with psychophysical disabilities require full diagnosis by a special organization of psychological, medical and pedagogical organization. This emphasizes the importance of determining the proper educational trajectory to determine the child's educational needs and potential. During the analysis of the RK gradual evaluation system, a survey and interviewing of specialists of in-school team evaluation and the psychological-medical-pedagogical council of the special organization were conducted. The results showed their effectiveness at the stage of assessment introduced in RK in 2022. This is evident from observing that of the 21 children referred to the PMPC, 17 achieved the goals and objectives of the curriculum at a satisfactory level consistent with their potential abilities. The remaining 216 students achieved the goals and objectives of the selected adapted curriculum as indicated by the results of the in-school team assessment. We interviewed 135 educators to identify the specifics of the progression of in-school assessment and factors influencing assessment. This included by grade level.

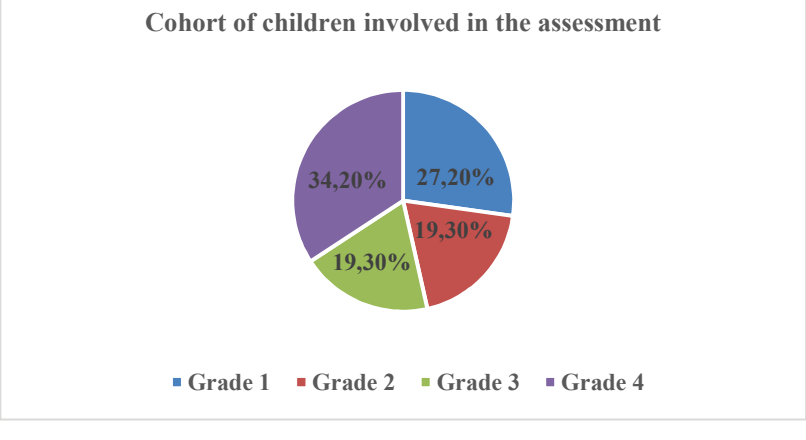

Figure 1: Cohort of children involved in the assessment

The survey showed that on average there are about 24 students with special educational needs in primary education classes in RK. Among children with special educational needs the most common are children with health conditions, which is about 66.1%, the remaining 17.3% – children with low performance due to any social and psychological conditions, 4.7% – gifted children and 11.8% – children with psychophysical disorders. Teachers, and occasionally specialists from the in-school psycho-pedagogical support office – speech

therapists, special educators and educational psychologists – were involved in identifying children with special educational needs. Teachers claimed that there were no criteria and no special methodology on which they relied when participating in the assessment. The results of the survey showed that it is very important for primary school teachers to use data on individual indicators and specific features of children in the assessment areas to plan the educational process. After identifying children with SEN, a team-wide assessment was conducted with the participation of teachers and the offices of psychological and pedagogical support. Along with the teachers a speech therapist, a special teacher, a teacher-psychologist, a child and his parents took part in it. They checked the child's progress in the main subjects, the level of development of speech and intelligence. Based on the results, an individual curriculum for each subject was developed, and the need for additional help from specialists was determined. If a child with an SEN of 6 months under the terms of the contract cannot master the curriculum, he or she is referred to the psychological and pedagogical council for an in-depth and full examination. The results of the study showed that 21 out of 29 children with psychophysical disorders were referred to the PMPC. In the course of the study teachers conducted classes from January 2022 to November 2022, taking into account the presence of simplified tasks in the child's individual development cards, the specifics of the organization of classes taking into account potential abilities, the developmental component in the objectives of the lesson. The respondents noted that the personal development program considered the opinion of parents in 97.6% of cases. As a result it was established that among children with SEN children with psychophysical disorders require full diagnostics by the special organization. During the interviews it was found that teachers try to direct the children as much as possible to the assessment, rather than team assessment, as they state that they experience difficulties in the presence of a complex defect and severe psychophysiological disorder. Elementary school teachers receive student achievement as the primary criterion for assessment, which was answered by 86% of the respondents. Conditions such as the presence or absence of a psychophysical disorder, conduct disorder, and frequent non-attendance were identified as the second important condition. Respondents gave varying responses to the question of what difficulties they faced in educating children with special educational needs. By grouping these responses, it appeared that educators were concerned about the following issues. Among them is there is the fact that the mistakes that are sometimes made in the assessment process due to inaccurate assessment criteria are mostly inaccurate curriculum definitions. For example, when determining the level of development of intelligence in children with speech impairments, it may be difficult for him to give an exhaustive answer to the question. In addition, the results of the interviews showed that the child's somatic condition, according to some educators, also hindered the child's educational attainment due to its potential. The second question from the evaluation revealed that 14 teachers working in inclusive settings found it difficult to work with children with intellectual disabilities. And 19 educators noted good teaching aids and facilities in the education of children with intellectual disabilities. The rest of the teachers claimed that they had no difficulties in planning their work due to the influence of various factors in working with children with special educational needs.

Peculiarities of PMPC assessment in RK

Currently, not only the psychological, medical and pedagogical council is engaged in assessment, based on best international practices, the assessment is conducted first within the school in a team direction, and PMPC sends a child only with the permission of parents to conduct a broad spectrum assessment.

New areas of PMPC activity were determined by the socio-pedagogical model:

- comprehensive examination in accordance with standard programs of psychological, medical and pedagogical research;

- determination of the type of disorders, problems or developmental difficulties:

Table 1. *Analysis results of the 1st stage of the SEN evaluation*

Evaluation Criteria	Advantages	Difficulties encountered
Program acquisition of the major disciplines Spoken language Features of mental processes	The assessment involves more than one specialist, which affects the fairness of the assessment process	Uncertainty of assessment criteria Difficulty in assessing in the presence of serious insufficiency and severe psychophysiological disorder Scarcity of methodological guidance and lack of material facilities

- socio-pedagogical classification of children with SEN, shifting the emphasis from medical diagnosis to psychological and pedagogical classification;

- identification a group of children with special educational needs;

- assessment and determination of the scope of special educational needs;

- determination of the types of assistance and services provided to different groups of children with special educational needs;

- elaboration of proposals for meeting special educational needs;

- expansion of advisory assistance to parents on the upbringing and development of children in family settings;

- provision of advisory assistance to general education organizations in creating special learning conditions for children with special educational needs (Yersarina A.K. "Organization of psychological, medical and pedagogical consultations in the system of inclusive education", methodological recommendations Almaty 2020).

The PMPC assessment usually involves an educational psychologist, a speech therapist, a special educator and a neurologist. Depending on the child's condition, other specialists may also be involved, for example, an ENT doctor and an ophthalmologist, etc.

When asked by PMPC specialists about the pool of children who most frequently refer to the assessment, a respondent answered that 72.5% (36 respondents) were preschool-age children. And 17.6% (9 respondents) responded that they are elementary school children, and the remaining 11.7% (6 respondents) responded that they are middle school students. It provides systematic, organized assistance for early identification and timely intervention to children with special educational needs in Kazakhstan. Assessment of special educational needs in schools shows a relatively lower percentage because of the identification of children with psychophysical disorders as a result of early screening and remedial work in the preschool period.

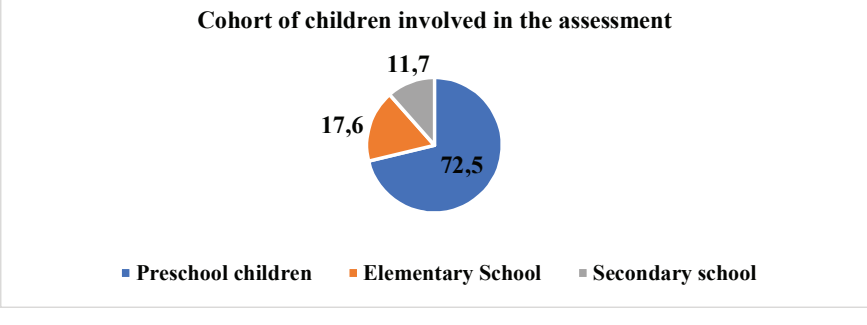

Figure 2: Cohort of children involved in the assessment

PMPC specialists have established that during the evaluation and determination the type of educational programs, particular attention is paid to the level of cognitive development and speech development of the child. Further, the condition of gross and fine motor skills, adaptive behavior, and the level of proficiency in educational programs are evaluated.

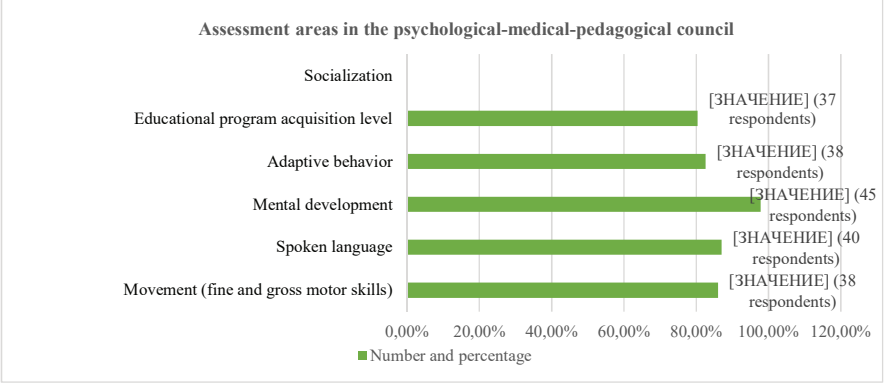

Figure 3: Assessment areas in the psychological-medical-pedagogical council

As noted in Kazakhstan, on average, children undergo an assessment session only once or twice to determine special educational needs. This means that the assessment process is complete and there is no need for reassessment, as it can offer effective educational programs for children with SEN.

The PMPC specialists responded to the question, "What difficulties do you encounter during the assessment?": parents disagree with the diagnostic results, failure to make contact with children with SEN, failure of a child with SEN to communicate, insufficient time allocated for assessment, incorrectly outdated diagnostic assignment during assessment, problems in the child's behavior.

Table 2. *Difficulties encountered by PMPC specialists*

Respondents' answers	Number of respondents	Percentage
Communication difficulties with the child	19	37,4 %
Parental disagreement with the results of the evaluation	6	12 %
Lack of parental contact	3	5,8 %
Difficulty in determining the level of development of students' intelligence and mental processes	1	1,9 %
Poor state and mood of the child	5	9,8 %
Lack of time	3	5,8 %
Did not answer the question	3	5,8 %
No problems	10	19,6 %
Misdiagnosis of children with communication disorders in determining their specific developmental position	1	1,9 %

The result shows that specialists often have difficulty communicating with the child during the evaluation process. This is most commonly caused by the fact that the PMPC assessment includes children with psychophysical disabilities who, due to the results of the in-school team assessment, have no improvement in academic performance or require a special educational program, and have difficulty adapting in their new environment. When asked what information the PMPC proposal should provide to subject teachers and specific professionals learning in an inclusive environment to effectively organize the educational process, most respondents answered that it is to identify the type of curriculum and the form of special accommodations.

Table 3. *Content of the PMPC proposal*

Respondents' answers	Number of respondents	Percentage
Recommendations	6	11,8 %
No response	2	3,9 %

General information about a child with SEN	6	11,8 %
Identification of the type of instructional programs and form of special arrangements	15	29,4 %
Information about assessment areas and outcomes	14	27,4 %
Counseling activities for schools, parents	8	15,7 %

Although the answer varies, all respondents fill out a referral according to a certain approved sample. It briefly specifies the form of instruction, special conditions necessary for a child with an SEN. This is insufficient information, as can be seen from the answer of PMPC specialists. A.S. Verozub believes that children with multiple developmental disorders can differ in speech, intellectual, emotional, motor, sensory aspects, so such children should be evaluated according to the following blocks: emotional reaction, visual perception, auditory perception, tactile sensitivity, ability to orient in space, motor development (fine and large motor skills), cognitive development as well as general characteristics of activity (motivation, understanding of direction, nature of activity, pace and dynamics, efficiency, learning ability).

Therefore, it became clear from the questionnaire that assessing the child in all areas and including general information about assessment areas and the child in the direction will allow school teachers to more effectively organize the educational process for children with SEN due to the provision of additional information on the optimization of the educational program. Testing its impact on the learning process now requires further research.

The results of the research show that more than 70% of PMPC specialists pay attention to the intelligence level when choosing the form of instruction for a student with special educational needs.

Table 4. *Information that specialists rely on when choosing the form of instruction*

Respondents' answers	Number of respondents	Percentage
Level of intellectual development	38	74,5 %
Teachers' statements	2	3,9 %
Doctor's report	6	11,8 %
Children's history, parents' opinions	5	9,8 %

The results of the survey showed that in 82% of the cases the advice of other specialists is used in the assessment of special educational needs, which is explained by the presence of major PMPC neurologists, ENT and ophthalmologists.

Besides the answers of the specialists who participated in the interview, the methods used in the assessment of special educational needs, counseling, are applied according to age. The exception to this are examples of tasks of the same origin and standardized tests applied according to the sample approved for PMPC specialists, where each specialist tries to apply methods appropriate to the specifics of the child. However, it is established that at preschool age, Segen boards, Koss cubes, Raven matrices, the Pierrot-Ruessen method and the Glenn-Domain method are most often used. When using with school-age children, specialists choose their own methods.

Table 5. *Analysis of the PMPC SEN evaluation*

Evaluation Criteria	Advantages	Disadvantages
During the differential diagnosis, the set of tasks and methods used are selected by specialists independently	Several specialists take part in the evaluation, rather than one, which affects the objectivity of the evaluation process	Improper use of outdated diagnostic tasks in the evaluation process, problems in the child's behavior The issue of funding Lack of logistical support The test result does not provide information about the methods and areas of assessment used in the evaluation

Despite the fact that during the analysis of the system of assessment of special educational needs of the RK deficiencies are identified, it can be noted that to some extent the focus is on the assessment process because of the variety of types and stages of assessment. The deficiencies encountered are due to the economic potential of the RK and the new formation of an inclusive society and consciousness.

Discussion. It was found that although there is a proper assessment system in place, the key factor is that the content of the tasks used in the assessment process plays a critical role. This is due to the fact that the data from the assessment helps to identify factors to improve the quality of education. Also, Baker, S. et. al found that the correlation result between the use of assessment tools for developing reading and speaking skills allows educators to predict improved reading skills (Baker, S. K., Gersten, R., Haager, D., & Dingle, M 2006). Accordingly, these educators can better focus on speech development as a remedial component when working with students with special educational needs or incorporating work with a speech-language pathologist into an inclusive environment, so additional research work should be conducted on this topic. The use of additional digital technology is also very significant in the assessment process. It is considered an indispensable tool as a source of additional information and for comparing student performance in dynamic assessment. However, the possibilities of using monitoring tools to improve the quality of education are vast and should be done by defining the structure and concept of its application (Bell, C. A., Dobbelaer, M. J., Klette, K., & Visscher, A 2019). The use of such cameras also allows observation of the child's psychological characteristics in the assessment process. Also, the organization of systematic assessment work in teaching children with complex disabilities and, accordingly, the organization of teacher qualification courses influences the improvement of the quality of education. (Lemekh, E. A., 2022). Antoniou, F. et. al. found that artificial intelligence, such as a special software unit, can produce better results in the assessment as an auxiliary tool, identifying the strengths and weaknesses of the child (Antoniou, F., Ralli, A. M., Mouzaki, A., Diamanti, V., & Papaioannou, S.).

There are many factors influencing the acquisition of reliable information in the assessment of SEN. Kazakhstan is a multinational state, so despite the fact that the above-mentioned assessment system is a legislated system at the macro level, the adaptation of diagnostic tasks to determine the specific educational needs and developmental level of the child is becoming increasingly important. In this regard, a study conducted by Murtagh in an Irish school has shown that the quality of educational psychological and special education services is negatively affected by factors such as the quality of translation services and the lack of appropriate assessment tools (Murtagh, L., & Seoighe, A 2022). Performing ability in children with disabilities has been found to show low levels and communicative and language deficits are due to family factors (Jylänki, P., Mbay, T., Byman, A., Hakkarainen, A., Sääkslahti, A., & Aunio, P 2022). The level of understanding of word meaning allows to predict the child's level of development later in the identification of reading disabilities (Camilleri, Bernard & Law, James. 2009). Dynamic assessment has been found to yield better results than standardized testing when assessing speech position (Camilleri, Bernard & Law, James. 2009). The use of self-assessment approaches in inclusive education also contributes beneficial to the academic performance of children with SEN (McConomy, M. A., Root, J., & Wade, T 2022). Children with multiple disabilities and intellectual impairments acquired problem-solving skills during functional science inquiry sessions using self-assessment sheets created using a multi-region design and demonstrated independent problem-solving skills. (Miller, B., & Taber-Doughty, T 2014).

The survey results showed that teachers in education experience difficulties in working with children with intellectual impairments. The main reason is the inability of such children to adapt to a new situation, inability to show the result of the activity, low level

of thinking operations. As McDonnell et al. point out in their research work, one of the problems arising from teaching general education curriculum content to students with intellectual and developmental disabilities is that they are unable to apply the skills they have learned in normal work settings. Results also show that students with significant disabilities do not participate in activities that promote academic integration. To help increase the engagement of these children in general education classrooms, we suggest that contextual factors that support the need for a partnership between teachers and occupational therapists to facilitate the acquisition of curriculum-related skills (Skinner, S. Y., Katz, J., & Knight, V. F, 2022). Therefore, when teaching children with disabilities, it is important for educators to enhance skills according to recent research findings. For example, it has been found that when teaching children with intellectual disabilities, there are no problems in analyzing schema harpy tasks, analyzing tasks based on a modified schema that includes graphic organizers, systematic feedback tips, distinguishing task types, and solving textual tasks (Browder, D. M., Spooner, F., Lo, Y., Saunders, A. F., Root, J. R., Ley Davis, L., & Brosh,C.R, 2018). Nevertheless, additional research on the applicability in children with intellectual disabilities due to the peculiarities of the linguistic structure of the Kazakh language is needed to apply the methods suggested above.

With the purpose of designing effective individual plans for a student enrolled in inclusive settings, it is necessary to describe the strengths of the developmental area and the range of problems in order to more accurately represent the special needs of a student with SEN. (Liubarets, V., Miroshnichenko, T., Cherusheva, G., Pyzh, N., & Protas, O., 2022). The results of the analysis of cognitive, affective, and behavioral psychometric components in the psychometric assessment of students showed that the components in teacher and parent surveys are not distinguishable (De Boer, A., Timmerman, M., Pijl, S. J., & Minnaert, A, 2012).

Conclusion. The results of the study emphasise the importance of a systematic approach to assessing and supporting children with special educational needs (SEN). The introduction in Kazakhstan of a step-by-step assessment system based on international experience has made it possible to optimise the process of identifying and meeting the educational needs of children at different stages of their development.The team assessment carried out in schools in combination with the work of PMPC specialists has shown its effectiveness in determining adequate educational trajectories for children with SEND. Moreover, early identification of disorders in preschool age contributes to the timely start of remedial work, which reduces the need for complex interventions at later stages.The difficulties identified in the work of PMPC specialists, such as time constraints, outdated diagnostic tools and the complexity of interaction with children, demonstrate the need to improve the system of training and retraining, as well as to strengthen the material and technical base.The data obtained confirm that adequate diagnosis and an individualised approach to teaching children with SEND have a positive impact on their educational achievements. However, in order to further improve the effectiveness of the educational process, it is necessary to continue research aimed at analysing the long-term impact of the graded assessment system on the academic achievement and development of children with disabilities.Thus, the formation of an inclusive educational environment and ensuring quality assessment of children with special educational needs require comprehensive efforts, including professional development of specialists, modernisation of diagnostic methods and strengthening of cooperation between educational institutions and PMPC. This will be the basis for the successful realisation of each child's potential and strengthening the system of inclusive education in Kazakhstan.

References

Antoniou, F., Ralli, A. M., Mouzaki, A., Diamanti, V., & Papaioannou, S. (2022). Logometro®: The psychometric properties of a norm-referenced digital battery for language assessment of Greek-speaking 4–7 years old children. Frontiers in Psychology, 13, 1–14. https://doi.org/10.3389/fpsyg.2022.900600

Baker, S. K., Gersten, R., Haager, D., & Dingle, M. (2006). Teaching practice and the reading growth of first-grade English learners: Validation of an observation instrument. Elementary School Journal, 107(2), 199–219. https://doi.org/10.1086/510655

Bell, C. A., Dobbelaer, M. J., Klette, K., & Visscher, A. (2020). Qualities of classroom observation systems. School Effectiveness and School Improvement, 30(1), 3–29. https://doi.org/10.1080/09243453.2018.1539014

Browder, D. M., Spooner, F., Lo, Y., Saunders, A. F., Root, J. R., Davis, L. L., & Brosh, C. R. (2018). Teaching students with moderate intellectual disability to solve word problems. Journal of Special Education, 51(4), 222–235. https://doi.org/10.1177/0022466917721236

Camilleri, B., & Law, J. (2009). Assessing children referred to speech and language therapy: Static and dynamic assessment of receptive vocabulary. International Journal of Speech-Language Pathology, 9, 312–322. https://doi.org/10.1080/14417040701624474

Catts, H. W., Fey, M. E., Weismer, S. E., & Bridges, M. S. (2020). The relationship between language and reading abilities. In Understanding individual differences in language development across the school years (pp. 144–165). Routledge. https://doi.org/10.4324/9781315796987

De Boer, A., Timmerman, M., Pijl, S. J., & Minnaert, A. (2012). The psychometric evaluation of a questionnaire to measure attitudes towards inclusive education. European Journal of Psychology of Education, 27(4), 573–589. https://doi.org/10.1007/s10212-011-0096-z

DeLuca, E. R., Da Fonte, M. A., & Boesch, M. C. (2022). Reliability among school-based professionals: Using a feature-matching screening checklist to identify communication systems. Journal of Special Education Technology, 37(4), 536–549. https://doi.org/10.1177/01626434211066973

Desforges, M., & Lindsay, G. (2010). Procedures used to diagnose a disability and to assess special educational needs: An international review. Centre for Educational Development, Appraisal and Research, University of Warwick. Retrieved from https://ncse.ie/wp-content/uploads/2014/10/5_NCSE_Diag_Ass.pdf

Francis, Y. J., & Sanders, L. (2022). Using a quality first communication approach: Working systemically to support young people with speech, language, and communication needs in the youth justice system. Educational and Child Psychology, 39(2), 102–120. Retrieved from www.scopus.com

Glutting, J. J., Watkins, M. W., Konold, T. R., & McDermott, P. A. (2006). Distinctions without a difference: The utility of observed versus latent factors from the WISC-IV in estimating reading and math achievement on the WIAT-II. Journal of Special Education, 40, 103–114. https://doi.org/10.1177/00224669060400020101

Hertel, I., Chilla, S., & Ibrahim, L. A. (2022). Special needs assessment in bilingual school-age children in Germany. Languages, 7(1), 4. https://doi.org/10.3390/languages7010004

Jylänki, P., Mbay, T., Byman, A., Hakkarainen, A., Sääkslahti, A., & Aunio, P. (2022). Cognitive and academic outcomes of fundamental motor skill and physical activity interventions designed for children with special educational needs: A systematic review. Brain Sciences, 12(8), 1001. https://doi.org/10.3390/brainsci12081001

Lemekh, E. A. (2022). Sostoyaniye programmy professional'nogo razvitiya spetsialistov v korrektsionno-razvivayushchikh tsentrakh obucheniya v otnoshenii otsenki kachestva obrazovaniya sredi uchashchikhsya s tyazhelymi mnozhestvennymi narusheniyami v Respublike Belarus' [The state of professional development programme of specialists in correction and development training centres regarding the assessment of quality education among pupils with severe multiple disorders in the Republic of Belarus]. Education and Self Development, 17(3), 72–82. https://doi.org/10.26907/esd.17.3.07 [in Russian]

Lindsay, G., Desforges, M., Dockrell, J., Law, J., Peacey, N., & Beecham, J. (2008). Effective and efficient use of resources in services for children and young people with speech, language, and communication needs (DCSF-RW053). Department for Children, Schools and Families. Retrieved from https://dera.ioe.ac.uk/8593/1/DCSF-RW053.pdf

Liubarets, V., Miroshnichenko, T., Cherusheva, G., Pyzh, N., & Protas, O. (2022). Control monitoring of the educational process of students with special learning needs. Journal of Higher Education Theory and Practice, 22(5), 60–73. https://doi.org/10.33423/jhetp.v22i5.5202

McConomy, M. A., Root, J., & Wade, T. (2022). Using task analysis to support inclusion and assessment in the classroom. Teaching Exceptional Children, 54(6), 414–422. https://doi.org/10.1177/00400599211025565

McDonnell, J., Jameson, J. M., Bowman, J. A., Coleman, O., Ryan, J., Eichelberger, C., & Conradi, L. (2020). Assessing generalization in single-case research studies teaching core academic content to students with intellectual and developmental disabilities. Focus on Autism and Other Developmental Disabilities, 35(3), 143–152. https://doi.org/10.1177/1088357620902500

Miller, B., & Taber-Doughty, T. (2014). Self-monitoring checklists for inquiry problem-solving: Functional problem-solving methods for students with intellectual disability. Education and Training in Autism and Developmental Disabilities, 49(4), 555–567. Retrieved from www.scopus.com

Murtagh, L., & Seoighe, A. (2022). Educational psychological provision in Irish-medium primary schools in indigenous Irish language-speaking communities (Gaeltacht): Views of teachers and educational psychologists. British Journal of Educational Psychology, 92(4), 1278–1294. https://doi.org/10.1111/bjep.12499

Pravitel'stvo Respubliki Kazakhstan. (2022). Prikaz № 4 ob utverzhdenii printsipov otsenki osobykh obrazovatel'nykh potrebnostey Respubliki Kazakhstan [Order No. 4 on the approval of the principles of the assessment of special educational needs of the Republic of Kazakhstan]. Retrieved from https://adilet.zan.kz/kaz/docs/V2200026618/history [in Russian]

Prezident Respubliki Kazakhstan. (2018). Strategicheskiy plan razvitiya Respubliki Kazakhstan do 2025 goda (Ukaz № 636 ot 15 fevralya 2018 g.) [Strategic Development Plan of the Republic of Kazakhstan by 2025 (Decree No. 636, February 15, 2018)]. [in Russian]

Šafárová, K., Mekyska, J., & Zvončák, V. (2021). Developmental dysgraphia: A new approach to diagnosis. International Journal of Assessment and Evaluation, 28(1), 143–160. https://doi.org/10.18848/2327-7920/CGP/V28I01/143-160

Verozub, A. S. (2022). Innovatsionnyy podkhod k razrabotke tekhnologii obsledovaniya detey s tyazhelymi mnozhestvennymi narusheniyami razvitiya [Innovative approach to the development of technology for the examination of children with severe multiple developmental disorders]. Spetsial'noye obrazovaniye – Special Education, 1(65), 54–62. [in Russian]

Zakon Respubliki Kazakhstan ob obrazovanii. (2007). [Law of the Republic of Kazakhstan on Education]. Retrieved from https://adilet.zan.kz/rus/docs/Z070000319_ [in Russian]

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VALUES FORMATION IN SCHOOLCHILDREN THROUGH GLOBAL STRATEGIC STUDIES: QUANTITATIVE STUDY RESULTS

Abstract

This study examines the impact of geopolitical education in the school geography curriculum on students' cognitive development, practical skills, and value formation. A structured questionnaire was used to assess students' understanding of fundamental geopolitical concepts, their ability to analyze international processes, and their perceptions of key values such as tolerance, responsibility, and civic awareness. The collected data were analyzed using statistical software to objectively assess the level of learning and identify patterns in students' responses. The results indicate that students demonstrate strong retention of knowledge and high levels of engagement in geopolitical topics, but there are challenges in the practical application of acquired skills. The study highlights the importance of integrating geopolitics into education to prepare students for informed participation in global affairs. By strengthening decision-making competencies and promoting ethical perspectives, geopolitical education can contribute to the development of responsible citizens capable of addressing contemporary international challenges. The results point to the need for interactive learning approaches, including discussions, simulations, and case studies, to strengthen students' ability to critically evaluate geopolitical scenarios. The study also highlights the need for a well-structured curriculum that combines theoretical knowledge with practical learning to enhance students' preparedness for future challenges.

Keywords: cognitive knowledge; skills; value attitudes; school education; quantitative analysis.

Introduction. The development of key skills and values in schoolchildren is becoming an important task of modern education, especially in the context of globalization and increasing interdependence of countries. In this context, the study of geopolitics is of particular importance, since it contributes to the development of critical thinking, analytical skills, and understanding of international processes in students (Azkiya, 2023; Belhoste & Dimitrova, 2023). Researchers note that the integration of geopolitical topics into school courses allows students to comprehend complex issues of the modern world and develop decision-making skills in conditions of uncertainty (Adanalı, 2021; Fettweis, 2015). School textbooks play a key role in education by setting the direction for studying key topics such as international conflicts, energy security, and sustainable development. They not only convey basic knowledge but also contribute to the development of students' analytical skills and the formation of their own opinions (Kelly, 2019; Kopanja, 2020).

Geopolitics, as a discipline at the intersection of geography and international relations, helps to instill in students a sense of responsibility for their future and the future of their country. According to research by Dittmer and Dodds (2008), the study of geopolitical issues through popular culture helps schoolchildren perceive complex international conflicts through the prism of everyday life. Such approaches contribute to a deeper assimilation of the material and the formation of sustainable values (Dittmer & Gray, 2010). A number of studies demonstrate the positive impact of geopolitical education on the formation of students' civic position. In particular, Carter and McCormick (2006) emphasize that school courses that include elements of geopolitics allow students to critically understand the role of their country in international processes. The importance of this approach is confirmed in the study of Dittmer (2005), which shows that the use of multimedia and digital resources for studying international relations contributes to the development of analytical skills.

Theoretical aspects of integrating geopolitics into school education are actively studied both in Western countries and in Kazakhstan. For example, the works of Western researchers Ide (2016) and Kelly (2019) focus on the critical perception of international events and their influence on the formation of students' behavior. At the same time, studies by Wu (2018) and Starr (2005) emphasize the importance of taking into account cultural and national characteristics when introducing geopolitical topics into educational programs. In Kazakhstan, similar issues are raised in the work of Myrzaly et al. (2024), who note that the integration of geopolitical concepts into secondary education promotes students' understanding of global issues and the development of their analytical skills.

Research conducted by Li and Wang (2024) shows that the use of online resources and blended learning methods effectively increases student engagement and promotes independent work. In addition, it is important to note the role of teachers in developing students' skills in analyzing and evaluating international events. Reber (2009) emphasizes in his work that teachers must have a high level of training and use modern teaching methods in order to effectively develop students' critical thinking.

Thus, the inclusion of geopolitics in the school curriculum not only improves students' academic performance, but also prepares them for conscious participation in society. The formation of knowledge about geopolitics is an important part of the overall educational strategy aimed at educating responsible citizens who are able to understand and make decisions in the face of global challenges.

The *purpose* of this study is to analyze the impact of studying geopolitics on the formation of schoolchildren's cognitive knowledge, practical skills, and value systems.

The main *objectives* of the study:

1. To assess the level of formation of cognitive knowledge on geopolitics.

2. To identify the degree of development of skills in working with information and analytical abilities.

3. To study the impact of the educational process on the formation of students' value systems.

The *hypothesis* of the study is that the geography curriculum contributes to the formation of significant cognitive knowledge in schoolchildren, develops practical skills in analyzing information and geopolitical processes, and also forms stable value systems, such as patriotism, tolerance, and respect for international norms.

Materials and Methods. The study was organized in three stages. The first stage defined the scope, object, purpose and objectives of the study. The second stage included a literature review and selection of methodology. The final stage included an empirical study, data analysis and formulation of conclusions.

Participants of the study. A total of 203 11th-grade students from urban (62.1%) and rural schools (37.9%) in the Almaty region took part in the survey. The sample of 11th-grade students was not chosen randomly, since it is at this stage that the school study of the geography course, which includes topics related to geopolitics, ends. 11th-grade students have a sufficient level of knowledge and life experience, which allows them to give more informed and reasoned answers to questions regarding international relations, global challenges and the importance of sustainable development.

Tools. The questionnaire consisted of 25 questions divided into three categories: cognitive, skill and affective. Participants rated their level of agreement with the statements on a Likert scale from 1 to 5, where 1 means "completely disagree" and 5 – "completely agree".

Question categories:

- cognitive category (7 questions): questions on knowledge of basic geopolitical concepts and processes;
- skill category (9 questions): questions on the development of analytical skills and the ability to work with maps and information sources;
- affective category (9 questions): questions concerning the formation of value attitudes, such as tolerance, patriotism and respect for international norms.

Data Collection Procedure. The data collection procedure included the development of a questionnaire, drafted by the authors of the study and pre-checked for completeness and clarity of wording. The questionnaire was administered to students through geography teachers using the Google Forms platform. The respondents' responses were collected over a two-week period.

Data processing methods. IBM SPSS Statistics Version 30.0.0.0 (172) was used to process the collected data. The following statistical analysis methods were used in the study:

1. Descriptive statistics to calculate the mean values (M) and standard deviations (SD) for each of the survey categories: cognitive, skill, and affective.

2. Correlation analysis to identify relationships between cognitive knowledge, skills, and affective attitudes, the Pearson correlation coefficient (r) was used.

3. Factor analysis to verify the structure of the questionnaire, that is, to confirm that the questions are indeed grouped into three separate categories – cognitive, skill, and affective. The results of the factor analysis made it possible to assess the internal consistency of each category.

4. Graphic visualization of data to clearly present the results, bar charts and histograms were constructed showing average values by category, as well as the distribution of responses by cognitive, skill and affective components.

Results. The results of the study revealed high average values for the cognitive and affective categories, indicating a significant level of assimilation of key knowledge on geopolitics by students and their awareness of the importance of value systems such as tolerance, respect for other cultures and patriotism (fig. 1). The average score (M) for the cognitive category was M=4.2, confirming a high level of students' understanding of geopolitical processes. In the affective category, the average score was M=4.0, indicating successful development of social and ethical orientations. At the same time, the average value for the skill category was M=3.8, which is slightly lower than in other categories and indicates the need to strengthen the practical component of training aimed at developing analytical and research skills.

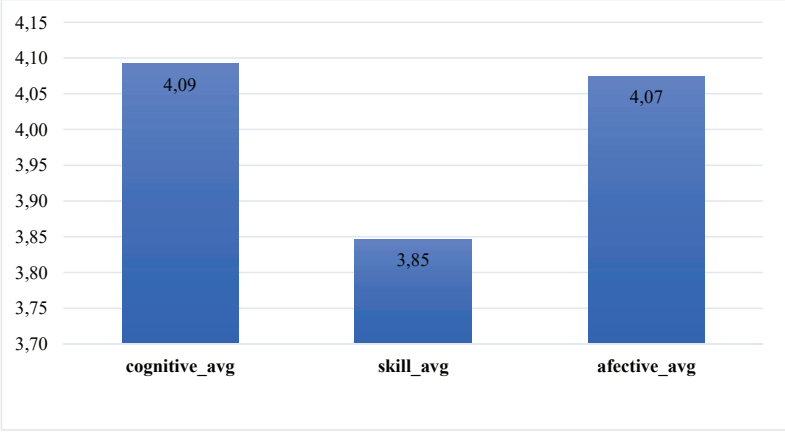

Figure 1: Comparison of mean values of cognitive, skill and affective categories

Analysis of the cognitive category. The results of the study of the cognitive category, presented in figure 2, demonstrate a high level of assimilation of knowledge on key issues of geopolitics by students. The average value for the cognitive category is M=4.09 with a standard deviation of SD=0.77, which indicates a high degree of agreement of students with statements reflecting an understanding of geopolitical processes. The histogram shows that the most frequent assessments are in the range from 4.0 to 5.0, with a peak around 4.0, which confirms the prevalence of high knowledge among the majority of respondents.

The analysis of individual questions (table 1) shows that the highest mean value (M=4.18, SD=0.89) was received by the statement "The role of international organizations, such as the UN or NATO, in geopolitics is explained", which indicates a good understanding by students of the importance of international structures in global political processes. High mean values were also noted for questions concerning the explanation of the importance of the country's geographical location for its political and economic relations (M=4.17, SD=0.90) and the analysis of global processes, such as conflicts, integration and cooperation between countries (M=4.12, SD=0.95). Relatively low mean values are observed for questions related to the presentation of historical examples of geopolitical events (M=3.97, SD=0.92) and the importance of geopolitics for the sustainable development of countries (M=3.98, SD=0.83). This may indicate that students have a more difficult time perceiving historical examples and relating them to contemporary processes, as well as the need to increase the emphasis on sustainable development in the geopolitics course.

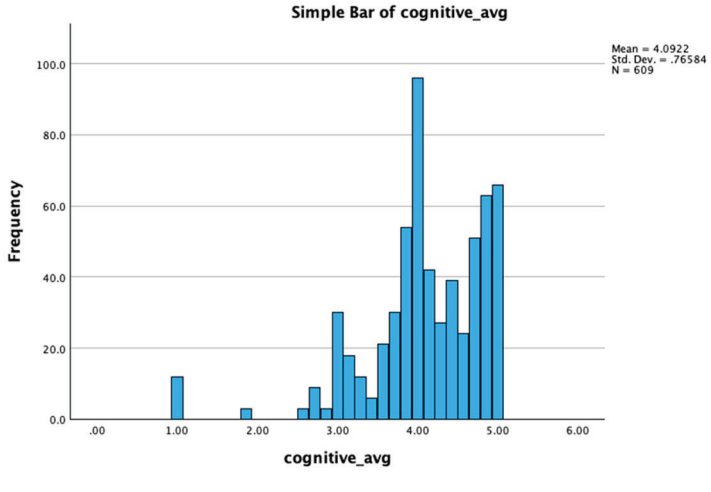

Figure 2: Distribution of values by cognitive category

Table 1. *Descriptive statistics for cognitive category questions*

	N	Mean	Std. Deviation
Geopolitics explains the importance of a country's geographical location for its political and economic relations	203	4.17	.904
Analyzes the reasons for changing borders and dividing territories	203	4.11	.908
Tells about global processes such as conflicts, integration and cooperation between countries	203	4.12	.952
Studies the influence of natural resources on relations between states	203	4.11	.971
Explains the role of international organizations such as the UN or NATO in geopolitics	203	4.18	.891
Presents historical examples of geopolitical events and their consequences	203	3.97	.919
Shows the importance of geopolitics for the sustainable development of countries	203	3.98	.832

Analysis of the skill category. The results of the study of the skill category, presented in figure 3, show that the average score for the skill component was M=3.85 with a standard deviation of SD=0.68. Most students demonstrated a skill level in the range from 3.5 to 4.5, with a peak around 4.0, which indicates a fairly good level of formed skills, but still lower than the indicators for the cognitive category.

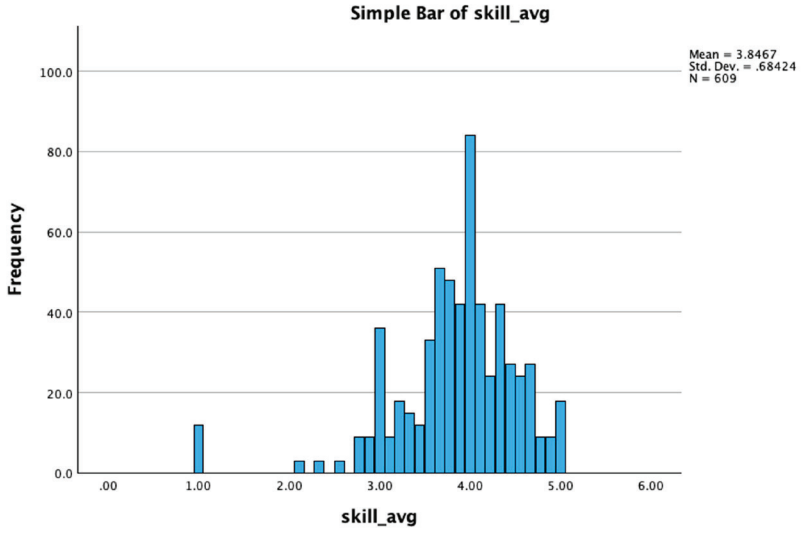

Figure 3: Distribution of values by skill category

An analysis of individual questions shows that the highest mean values were recorded for questions related to the development of skills in critically assessing geopolitical information (M=4.02, SD=0.86) and teamwork skills on projects on geopolitical topics (M=4.04, SD=0.86) (table 2). This indicates a high level of student interaction during the assignments and their ability to critically analyze information.

The mean values for questions related to the organization of educational activities, such as simulating international negotiations (M=3.39, SD=0.97) and conducting discussions and debates on topics related to geopolitics (M=3.63, SD=0.94), were somewhat lower. This may indicate that such practical forms of work are used less often or require more active involvement of students to achieve higher results.

Table 2. Descriptive statistics for skill category questions

	N	Mean	Std. Deviation
Develop skills in analyzing geopolitical maps and diagrams	203	3.98	.829
Work with various sources of information to analyze international relations	203	3.98	.901
Conduct discussions and debates on topics related to geopolitics	203	3.63	.938
Conduct practical tasks to analyze the impact of geopolitics on the economic development of countries	203	3.84	.855
Organize training events, such as simulating international negotiations	203	3.39	.970
Develop skills in predicting changes in the geopolitical space	203	3.87	.831
Analyze risks associated with international security	203	3.88	.842
Improve skills in critically assessing geopolitical information	203	4.02	.864
Develop skills in working in a team on projects on geopolitical topics	203	4.04	.861

Affective category analysis. The analysis of the results for the affective category showed that the average value for all questions was M=4.07 with a standard deviation of SD=0.73 (fig. 4), which indicates a fairly high level of formed value attitudes among students. The histogram shows that the distribution of responses has a peak in the range from 4.0 to 4.5, with the highest frequency around 4.0, which reflects the predominance of positive assessments. Students generally highly rated the importance of value aspects in studying geopolitics.

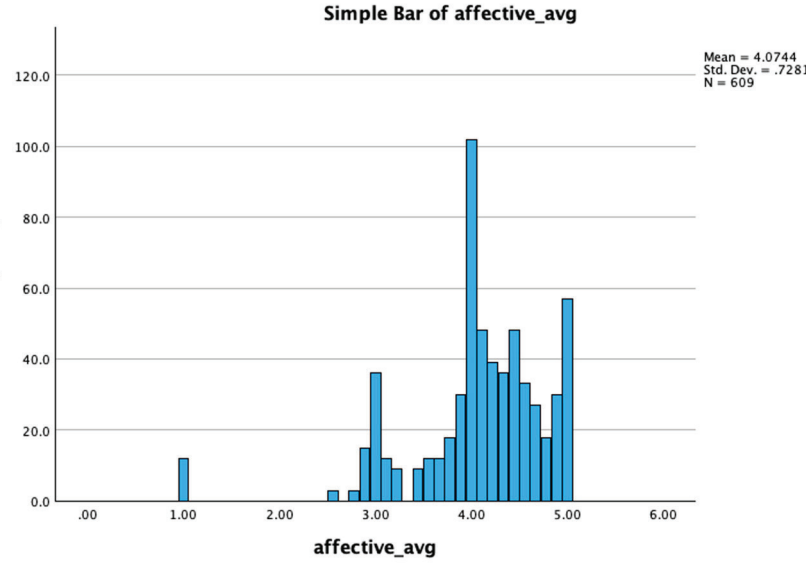

Figure 4: Distribution of values by affective category

According to table 3 of the descriptive statistics, the highest average value is observed for the statement "Interest in studying modern geopolitical events is being formed" (M=4.20, SD=0.88), which indicates significant motivation of students to further study this topic. A high level was also shown by statements about understanding the importance of international cooperation (M=4.19, SD=0.83) and fostering responsibility for maintaining peace and stability (M=4.12, SD=0.82). The average values for questions related to environmental responsibility (M=3.94, SD=0.90) and support for sustainable development (M=3.99, SD=0.86) were somewhat lower. This may indicate that these topics require more attention in the educational program, despite their relevance in the context of global challenges.

Table 3. *Descriptive statistics for affective category questions*

	N	Mean	Std. Deviation
Respect for the sovereignty and culture of other countries is formed	203	4.04	.922
Responsibility for maintaining peace and stability is fostered	203	4.12	.820
Respect for international laws and norms is instilled	203	4.08	.782
Interest in studying modern geopolitical events is formed	203	4.20	.879
A sense of patriotism is strengthened through awareness of the country's role in global geopolitics	203	4.06	.963
Tolerance and understanding of cultural diversity are instilled	203	4.05	.825
Environmental responsibility is fostered in the context of geopolitical challenges	203	3.94	.899
Support for sustainable development and solutions to global problems is stimulated	203	3.99	.859
Understanding of the importance of international cooperation is formed	203	4.19	.825

The results of the correlation analysis presented in table 4 showed the presence of significant positive relationships between cognitive knowledge, skills and affective attitudes of students studying geopolitics. The correlation coefficient between cognitive knowledge and skills was 0.800 ($p < 0.001$), which indicates that students with a higher level of knowledge also demonstrate more developed practical skills. The relationship between cognitive knowledge and affective attitudes was even higher ($r = 0.870$, $p < 0.001$), indicating that a deep understanding of geopolitical processes contributes to the formation of such value attitudes as tolerance, patriotism and respect for the culture of other countries. A strong relationship was also found between skills and affective attitudes ($r = 0.850$, $p < 0.001$), which confirms the influence of practical classes on the development of stable value orientations in students. All correlations are statistically significant at the level of $p < 0.001$, which indicates the reliability of the identified relationships and confirms that successful mastering of geopolitics contributes not only to the formation of knowledge and skills, but also to the development of the most important socio-ethical attitudes.

Table 4. *Correlation dependencies between the average values of categories*

		cognitive_avg	skill_avg	affective_avg
Cognitive_avg	Pearson Correlation	1	.800**	.870**
	Sig. (2-tailed)		<.001	<.001
	N	609	609	609
Skill_avg	Pearson Correlation	.800**	1	.850**
	Sig. (2-tailed)	<.001		<.001
	N	609	609	609
Affective_avg	Pearson Correlation	.870**	.850**	1
	Sig. (2-tailed)	<.001	<.001	
	N	609	609	609

** Correlation is significant at the 0.01 level (2-tailed)

Discussion. The results of this study demonstrate the importance of including geopolitics in the school curriculum to develop key competencies in students necessary for understanding international processes and making informed decisions. The high mean values of the cognitive category (M=4.09) confirm that students successfully master basic knowledge about international relations, geopolitical processes, and key international

organizations. This is consistent with the findings of previous studies, such as Kelly (2019) and Wu (2018), which emphasize the role of geopolitical education in developing students' analytical skills and critical thinking.

The mean values in the affective category (M=4.07) also indicate the successful formation of students' value systems, such as tolerance, patriotism, and respect for international norms. These results confirm the findings of Dittmer and Dodds (2008) that studying geopolitics contributes to the development of socially significant qualities and civic responsibility in students. However, slightly lower scores in the skills category (M=3.85) indicate that the practical component of training requires improvement. This coincides with the findings of Wu (2018), who notes that more active forms of training, such as simulating international negotiations and holding thematic discussions, are necessary for the full development of skills for analyzing and predicting international processes.

The results obtained emphasize the importance of integrating geopolitics into school education to develop not only knowledge but also socially significant values in schoolchildren. School textbooks play a special role in this process, which, as noted by Kopanja (2020) set the direction for studying key topics such as international conflicts, sustainable development, and energy security. In addition, the results of the study indicate the need for active involvement of students in practical activities related to the analysis of international processes. This may include project assignments, discussions, and role-playing games, which confirms the effectiveness of interactive teaching methods noted in Ide (2016).

limitations of the study. Despite the significance of the obtained results, the study has a number of limitations. Firstly, the study sample included only 11th grade students from schools in the Almaty region, which may limit the generalization of the results to other regions of Kazakhstan. Secondly, the survey was conducted using an online questionnaire, which may affect the accuracy of the data obtained, especially in rural schools where access to the Internet may be limited. It is also worth noting that the study focuses primarily on quantitative analysis, while qualitative methods, such as interviews with students and teachers, could complement and deepen the interpretation of the data obtained.

Directions for future research. Several directions are proposed for further development of the research topic. Firstly, it is advisable to conduct similar studies in other regions of Kazakhstan to compare the results and identify regional features of schoolchildren's perception of geopolitics. Secondly, it is recommended to use a combined approach, including both quantitative and qualitative research methods. This will provide a more complete picture of the development of students' knowledge, skills, and values. Finally, special attention should be paid to the development of teaching materials that take into account contemporary global challenges such as climate change, migration, and sustainable development issues. This will help make the process of learning geopolitics more relevant and useful for students, preparing them for active participation in society.

Thus, the results of this study confirm the importance of integrating geopolitics into the school curriculum and provide directions for further research aimed at improving teaching methods and enhancing the quality of geopolitical education.

Conclusion. This study confirmed the importance of studying geopolitics in the school curriculum for the comprehensive development of students. The results showed that high school students successfully develop cognitive knowledge about international relations, geopolitical processes and the role of key international organizations. The average values for the cognitive category indicate a high level of understanding of the basics of geopolitics. However, it was noted that more attention should be paid to historical examples and sustainable development in the educational process, since these aspects received comparatively lower marks. Analysis of the skill category revealed that although students demonstrate a fairly high level of development of analytical skills and abilities to work with information, there is still a need to strengthen the practical component

of training. This is especially true for holding discussions, debates and simulating international negotiations. This will not only develop the skills of forecasting and analyzing the international situation, but also increase the involvement of students in the educational process. The affective category, which includes value attitudes, also showed high results, especially in such aspects as interest in international events, a sense of patriotism and an understanding of the importance of international cooperation. At the same time, aspects that require further development have been identified, in particular the formation of environmental responsibility and understanding of the need for sustainable development. These topics, despite their high relevance in the modern world, are not yet sufficiently developed within the school curriculum. Thus, the study confirmed that the study of geopolitics contributes not only to the formation of knowledge and skills in students, but also to their education as citizens with a high level of social responsibility and critical thinking. To further improve the educational process, it is recommended to strengthen the practical component of teaching, pay more attention to global challenges of our time and use interactive teaching methods, such as role-playing games, case analysis and project assignments.

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References:

Adanalı, R. (2021). How geogames can support geographical education? *Review of International Geographical Education Online*. https://doi.org/10.33403/rigeo.855550.

Azkiya, N. (2023). Strengthening the awareness of state defense of the millennial generation through defense management against economic threats after the covid-19 pandemic. *International Journal of Humanities Education and Social Sciences (Ijhess)*, 3(2). https://doi.org/10.55227/ijhess.v3i2.629

Belhoste, N. and Dimitrova, A. (2023). Developing critical geopolitical awareness in management education. *Management Learning.* https://doi.org/10.1177/13505076231185970

Carter, S., & McCormack, D. P. (2006). Film, geopolitics and the affective logics of intervention. *Political Geography*, 25(2), 228-245. DOI: https://doi.org/10.1016/j.polgeo.2005.11.004.

Dittmer, J. (2005). Captain America's Empire: Reflections on Identity, Popular Culture, and Post-9/11 Geopolitics. *Annals of the Association of American Geographers.* https://doi.org/10.1111/j.1467-8306.2005.00478.x.

Dittmer, J., & Dodds, K. (2008). Popular Geopolitics Past and Future: Fandom, Identities and Audiences. *Geopolitics*, 13(3), 437-457. DOI: https://doi.org/10.1080/14650040802203687.

Dittmer, J., & Gray, N. (2010). Popular Geopolitics 2.0: Towards New Methodologies of the Everyday. *Geography Compass.* https://doi.org/10.1111/j.1749-8198.2010.00399.x.

Fettweis, C. J. (2015). On Heartlands and Chessboards: Classical Geopolitics, Then and Now. *Orbis*, 59(2), 233-248. DOI: https://doi.org/10.1016/j.orbis.2015.02.005.

Ide, T. (2016). Critical geopolitics and school textbooks: The case of environment-conflict links in Germany. *Political Geography*, 55, 60-71. https://doi.org/10.1016/j.polgeo.2016.07.002.

Kelly, P. (2019). Classical Geopolitics, a New Analytical Model. *Pannoniana*, 3(1-2), 293-297. https://doi.org/10.2478/pannonia-2019-0016.

Kopanja, M. (2020). Geopolitical thought of saul bernard cohen: between obsoletion and underutilization. *Medjunarodni Problemi (International problems)*, 72(1), 61-100. https://doi.org/10.2298/medjp2001061k

Li, F., & Wang, L. (2024). A study on textbook use and its effects on students' academic performance. *Disciplinary and Interdisciplinary Science Education Research.* https://doi.org/10.1186/s43031-023-00094-1

Myrzaly, N. B., Muzdybayeva, K. K., Rakhymzhan, R. G., Abdimanapov, B. Sh., & Berdygulova, G. E. (2024). Geopolitics in school education: Assessing the perception of key aspects by secondary school students in Kazakhstan. *Pedagogy and Psychology, 60*(3). 46-57. https://doi.org/10.51889/2960-1649.2024.60.3.005

Starr, H. (2005). Territory, Proximity, and Spatiality: The Geography of International Conflict. *International Studies Review*, 7(3), 387-406. https://doi.org/10.1111/1468-0009.00011-i1

Wu, Z. (2018). Classical geopolitics, realism and the balance of power theory. *Journal of Strategic Studies*, 41(6), 786-823. https://doi.org/10.1080/01402390.2017.1379398.

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DEVELOPMENT OF SOFT SKILLS IN PRIMARY SCHOOL STUDENTS BASED ON NATIONAL VALUES

Abstract

In modern education, the development of soft skills among primary school students is of particular importance, as these skills contribute to their successful social adaptation, cognitive development and personal growth. This study is aimed at identifying opportunities for integrating national values into the process of forming soft skills in primary school students. The analysis of educational strategies of the countries (Finland, Japan, South Korea, USA, China, India) is carried out and the experience of the Republic of Kazakhstan in this context is considered. The key national values of Kazakhstan (language, traditions, family values, historical memory, national games, religious and spiritual norms, respect for nature) and their impact on the development of soft skills such as critical thinking, emotional intelligence, communicative and social abilities are identified. The research is based on the methods of conceptual analysis, comparative analysis of educational systems, and methods of systematization and classification. In the course of the work, effective pedagogical methods were identified, including project-based learning with an ethnocultural component, role-playing, mentoring, folk games and the study of national literature. The results of the study confirm that the inclusion of national values in the educational process not only promotes the development of soft skills, but also strengthens the national identity of students, making their education more meaningful and appropriate to the socio-cultural context of Kazakhstan. The results obtained can be useful for teachers, methodologists and developers of educational programs when creating innovative methods for the formation of soft skills in younger schoolchildren.

Keywords: soft skills, primary education, national values, pedagogical approaches, primary school students, critical thinking, emotional intelligence.

Introduction. In the context of rapid changes in society and the education system, there is an increasing need for students to develop not only academic knowledge, but also flexible skills such as critical thinking, communication skills, creativity, emotional intelligence, and teamwork. These competencies help a person adapt to new challenges, find original solutions, and interact effectively with others (Hrona et al., 2022; Bilous, 2024).

It is especially important to develop these skills from an early age, since it is in the primary school period that key personal characteristics, models of social interaction and basic cognitive abilities are laid (D'isanto et al., 2022; Linnik et al., 2022). Early development of soft skills has a long-term impact on a child's academic achievements, future career prospects, and personal well-being (Feraco et al., 2023; Saduakas & Abdurakhmanova, 2024).

At the same time, many educational systems focus on universal methods of forming soft skills, without taking into account the cultural and national characteristics of students. However, modern research in pedagogy and psychology confirms that it is through national values that students can most effectively develop flexible skills (Okada et al., 2024). National values play a key role in the process of a child's socialization and shape his worldview, behavioral attitudes and style of interaction with others. The inclusion of national traditions and cultural norms in the educational process makes learning more meaningful and motivating, as children from an early age begin to realize the connection between their own skills and the

historical and cultural heritage of their country (Fadlin et al., 2024).

In countries such as Finland, Japan and South Korea, national values are actively integrated into curricula, contributing to the development of key competencies of the 21st century (OECD, 2018). Thus, in Japan, considerable attention is paid to fostering collective responsibility, respect and harmony, which contributes to the development of cooperation and communication skills among children (Ministry of Education, Culture, Sports, Science and Technology, Japan, 2006). In Finland, national education policy is focused on developing students' autonomy and creativity through project-based learning based on national values of equality and social justice (Finnish National Board of Education, 2016).

In the educational system of Kazakhstan, national values are an integral element of the upbringing of the younger generation, which is enshrined in strategic documents such as the Kazakhstan 2050 Strategy, the Rukhani Zhangyru program and the State Mandatory Standard of Primary Education of the Republic of Kazakhstan. According to these documents, national identity must be combined with global competitiveness, which requires students not only to have academic knowledge, but also to have developed soft skills such as critical thinking, leadership, emotional intelligence and sociability.

Despite the importance of this problem, effective methods of integrating national values into the process of soft skills formation have not yet been sufficiently developed in the educational practice of Kazakhstan. In this regard, there is a need to develop pedagogical approaches based on national cultural traditions that will combine traditional forms of education with modern educational technologies.

The purpose of this study is to identify and substantiate effective pedagogical approaches to the formation of flexible skills in primary school students based on national values.

Research question: "How can national values contribute to the development of soft skills in younger schoolchildren?"

Materials and Methods. The research is *theoretical and analytical* and is aimed at studying the influence of national values on the development of soft skills in younger schoolchildren.

Methods of conceptual analysis, comparative analysis of educational systems, as well as systematization and classification of pedagogical approaches were used:

1. The conceptual analysis allowed us to study key pedagogical and psychological theories that consider the formation of soft skills in primary school children.

2. The comparative analysis was used to study the educational systems of Finland, Japan, South Korea, the USA, China and India, which revealed strategies for the formation of soft skills in countries with different cultural traditions.

3. The method of systematization and classification was used to structure pedagogical approaches aimed at developing soft skills through national values, which made it possible to determine the most effective strategies for their inclusion in the educational program.

The study was conducted in *three stages*. At the first stage, an analysis of scientific literature and educational standards was carried out, which made it possible to identify key national values that contribute to the development of soft skills among younger schoolchildren. The second stage included a comparative analysis of international experience, which made it possible to identify the most effective educational strategies used in different countries. At the final stage, the systematization of the data obtained was carried out, as a result of which specific pedagogical methods adapted for the educational system of Kazakhstan were proposed.

Results. The analysis showed that the development of soft skills in younger schoolchildren plays a key role in their cognitive, social and emotional development. Modern research emphasizes that soft skills are a set of universal competencies that include communication skills, critical thinking, emotional intelligence and cooperative skills, which makes them an integral element of successful learning and socialization of students (Heckman & Kautz, 2012).

Unlike hard skills, which are associated with the acquisition of academic knowledge

and the development of specific skills, soft skills provide the basis for long-term personal and professional growth, as well as contribute to the formation of self-confidence and social competence (Durlak et al., 2011). These skills are developed through a variety of educational practices aimed at active interaction, learning through practical experience, and the inclusion of cultural values in the learning process (Brackett et al., 2012).

Based on the analysis of various approaches to the development of soft skills in younger schoolchildren, a classification was formed, presented in Table 1, which highlights the main components of soft skills, their content and impact on the development of primary school children.

Table 1. *The content of soft skills in primary school students*

Component	Content	Impact on the development of primary school students
Cognitive	Critical thinking, problem solving, analytical skills	Development of the ability to analyze information, to find non-standard solutions
Communicative	Ability to express thoughts, active listening, group interaction	Improvement of speech skills, development of social confidence
Emotional	Empathy, emotion management, stress tolerance	Increased psychological stability, formation of emotional intelligence
Social	Cooperation, teamwork, adaptation in a team	Improvement of social ties, improvement of the ability to cooperate

Research shows that the cognitive component of soft skills is the basis for successful learning and solving complex tasks. The development of critical thinking and analytical abilities allows students to apply the acquired knowledge in real situations, which contributes to their independence and cognitive activity (Diamond & Lee, 2011). The use of active learning methods, such as project activities and game technologies, has a positive effect on the formation of cognitive flexibility and adaptability to changing conditions of the educational environment (Durlak et al., 2011).

The communicative component plays an important role in developing students' ability to express their thoughts, listen and understand their interlocutors, and interact effectively in a team. It has been proven that children with highly developed communication skills demonstrate greater self-confidence, adapt better to the school environment, and take initiative in learning processes (Jethava et al., 2022). The development of this group of soft skills at an early age contributes to the formation of leadership qualities and the ability for constructive dialogue in a child (Denham, 2006).

The emotional component of soft skills is closely related to the formation of the ability of primary school students to self-regulation, emotion management and stress tolerance. Research shows that children who have mastered emotional self-regulation strategies cope more easily with learning difficulties, experience less anxiety, and form more stable interpersonal relationships (Surzykiewicz et al., 2022). Practices aimed at developing the emotional component of soft skills include role-playing games, emotion management exercises, group discussions, and mindfulness techniques. Research confirms that such methods help to increase the level of self-control in children, improve their ability to empathize and form a positive attitude towards conflict resolution.

The social component includes the skills of cooperation, teamwork and adaptation in a team. The development of these abilities contributes to the formation of such important personal qualities as tolerance, respect for others, and the ability to find compromises in group activities (Vanhove et al., 2023).

An analysis of educational systems in various countries confirms that national values have a significant impact on the methods of soft skills formation in younger schoolchildren. A comparison of the approaches implemented in Finland, Japan, South Korea, the USA, China, and India revealed differences in strategies for

their integration into the educational process due to the historical, cultural, and social characteristics of each country. To systematize international experience, Table 2 is presented, reflecting the influence of national values on the development of soft skills.

Table 2. *Integration of soft skills into the educational process of different countries based on national values*

Country	National values	Approaches to the development of soft skills	Examples of implementation in primary schools
Finland (Finnish National Board of Education, 2016)	Equality, trust, personal autonomy	Project-based learning, teamwork, student self-management	Individual learning trajectories, joint student projects, group reflection after completing assignments
Japan (Ministry of Education, Culture, Sports, Science and Technology, Japan, 2006)	Discipline, teamwork, respect for elders	Collective learning, rituals of interaction, team projects	Work in Han groups (small groups of students who jointly perform various educational and social tasks), collective classroom cleaning, joint problem-solving activities
South Korea (Ministry of Education, Republic of Korea, 2015)	Diligence, respect for knowledge, collective responsibility	Intensive learning, technology integration into the educational process, group work	Group homework, digital educational platforms, mutual mentoring programs between students
USA (National Governors Association & Council of Chief State School Officers, 2010)	Individualism, initiative, leadership, creativity	Project-based learning, inclusive teaching methods, development of creative thinking, development of entrepreneurial competencies	Work on startups in elementary grades, STEAM education, debate clubs, individual presentations and public speaking
China (Ministry of Education of the People's Republic of China, 2009)	Harmony, teamwork, respect for traditions, hard work	Group work, mentoring, social initiatives, learning through rituals	Compulsory student participation in community projects, mentoring between older and younger students, joint school projects, collective morning rituals
India (Central Board of Secondary Education [CBSE], India, 2012)	Spirituality, family values, respect for the teacher (Guru)	Meditations, mentoring, learning through stories	The use of myths and stories in the educational process, group discussions about morality, morning meditations before classes

The results of a comparative analysis of educational strategies revealed the differences between individualistic and collectivistic learning systems. The educational approaches used in Finland and the USA are aimed at developing independence, initiative and creativity, while in China, Japan and South Korea the emphasis is on collective responsibility, respect for elders and harmony in society. In India and China, special attention is paid to spiritual and moral values, which has a significant impact on the formation of emotional intelligence, empathy and reflection among students.

The Kazakh educational system is focused on fostering a harmoniously developed personality, which is enshrined in such strategic documents as Kazakhstan 2050 Strategy, the Rukhani Zhangyru Program and the State Mandatory Standard of Primary Education of the Republic of Kazakhstan. According to the Program "Rukhani Zhangyru", national identity should be combined with global competitiveness, which requires students not only academic knowledge, but also developed soft skills, including critical thinking, leadership skills, emotional intelligence and communication

skills. The State Mandatory Standard of Primary Education of the Republic of Kazakhstan (2022) emphasizes the importance of including cultural, historical and national values in the educational process, which contributes to the formation of a personality capable of adapting to society, showing initiative and awareness.

Based on the analysis of the national values of Kazakhstan, the key aspects of their influence on the formation of soft skills in younger schoolchildren have been identified. Table 3 shows the main national values of Kazakhstan, their content, examples of educational implementation and soft skills being developed.

Table 3. *Development of soft skills of primary school students based on national values of Kazakhstan*

National value	Content	Implementation examples	Developed soft skills
Language	Acquisition of the Kazakh language, study of traditional texts, folklore.	Discussions in the Kazakh language, the study of proverbs and sayings, theatrical performances.	Critical thinking, self-expression, communication skills.
Traditions and customs	Knowledge of national holidays, traditions and family customs.	Celebrating Nauryz at school, participating in dramatizations of traditional rituals.	Empathy, cooperation, respect for cultural diversity .
Historical memory	The study of the heroes of Kazakh history, folk tales and legends.	Role-playing games based on historical events, quests on the history of Kazakhstan.	Leadership, confidence, strategic thinking.
Family values	Respect for elders, respect for parents, knowledge of ancestry.	Educational conversations, essays about family, participation in family events.	Responsibility, tolerance, social intelligence.
National Games	Traditional Kazakh games (assyk, togyz-kumalak).	Organization of competitions, collective games for cohesion.	Teamwork, tactical thinking, coordination.
Religious and spiritual values	Respect for spiritual heritage, tolerance.	Educational hours, discussion of philosophical issues, study of moral and ethical norms.	Self-reflection, self-control, emotional stability.
Respect for nature	Respect for the environment, ecological awareness.	Environmental projects, tree planting, nature observation.	Responsibility, initiative, environmental literacy.

Special attention is paid to the fact that the formation of soft skills through national values allows younger schoolchildren to develop empathy, tolerance, social responsibility and cooperation skills, which is especially important in a multinational society in Kazakhstan.

As a result of the research, promising pedagogical strategies have also been identified that contribute to the development of soft skills among younger schoolchildren in the Kazakh context. Among them are project-based learning with an ethnocultural component, role-playing, mentoring, the use of folk traditions and Kazakh games, the study of national literature and proverbs.

An analysis of educational practice in Kazakhstan has shown that national-value-oriented training programs contribute to the development of communicative, cognitive, emotional and social skills. In addition, they increase academic motivation, strengthen national identity and the conscious inclusion of schoolchildren in the educational process.

Thus, the revealed results indicate that the combination of traditional educational practices with modern pedagogical technologies is a promising direction for the development of education, ensuring the harmonious development of students and their adaptation to the requirements of the 21st century.

Discussion. The results obtained confirm the importance of the formation of soft skills in younger schoolchildren and demonstrate that national values are an effective tool for their development. The inclusion of cultural traditions, language, historical memory and

family foundations in the educational process not only contributes to the socialization of students, but also strengthens their cognitive, communicative, emotional and social competencies. These results are consistent with existing studies confirming that soft skills are formed most effectively in a socio-cultural context corresponding to the national identity of students. In international educational systems such as Finnish, Japanese or South Korean, national traditions and cultural norms are actively used in educational programs, which contributes to the development of children's social responsibility, leadership skills and emotional intelligence. An analysis of foreign practices has shown that in countries with an individualistic educational model (Finland, USA), key attention is paid to the development of autonomy, critical thinking and initiative through project-based learning and creative assignments, whereas in countries with a collectivist model (Japan, China, South Korea), the emphasis is on fostering discipline, teamwork and respect for seniors through a system of group assignments, mentoring, and ritualized forms of interaction. In this context, Kazakhstan's approach can combine elements of both models, ensuring a balance between the individual development of students and the formation of collective values.

The results of the analysis confirm that the development of soft skills through national values in the educational process of Kazakhstan can be effectively implemented through the use of ethnocultural techniques aimed at the cognitive, communicative and emotional development of children. For example, the use of the Kazakh language not only contributes to the development of speech and communication skills, but also forms students' ability to think critically, comprehend national heritage and realize their own cultural identity. Role-playing games and theatrical performances based on national legends and historical events contribute to the development of emotional intelligence, empathy and leadership skills, allowing children to learn social behavior patterns in practice. Mentoring, which is widely used in Kazakh villages, can be adapted to the school environment in the form of inter-age education, where older students help younger students master both academic and social skills. The inclusion of folk games such as "assyk atu" and "togyzkumalak" forms strategic thinking, patience, coordination and the ability to cooperate, which is especially important for the development of teamwork and social adaptation.

A comparison of the revealed results with international studies confirms that the inclusion of national values in the educational process can be an effective tool for the formation of soft skills. In countries with high educational performance, such as Finland, national values are integrated through learning projects, an interdisciplinary approach, and autonomous learning, which promotes creative and critical thinking. In Japan, the system of collective interaction (for example, the Han group system) educates children's ability to cooperate, be responsible and respect the norms of society, which correlates with the Kazakh traditions of collective education. In the Chinese educational system, education is based on the principles of Confucian philosophy, according to which respect for traditions, diligence and harmony are the basis of education. These principles largely coincide with the Kazakh educational tradition, focused on combining spiritual and moral values with modern educational technologies. Thus, the results of this study confirm that the adaptation of national values in school education not only forms students' soft skills, but also strengthens their motivation to learn, which is an important factor in their academic and social success.

The practical significance of the results obtained lies in the fact that the identified methods and pedagogical strategies can be integrated into the educational process of primary schools to form soft skills in younger students. The introduction of national values into curricula makes it possible to create a more motivating educational environment in which children realize the importance of the subjects studied not only in terms of academic success, but also their connection with cultural traditions and national heritage. In the context of modernizing education in Kazakhstan, the introduction of such

approaches can contribute to the development of key 21st century competencies among students, including creativity, emotional intelligence, communication and social skills. The use of role-playing games, project-based learning, mentoring, and ethno-cultural components in the learning process can also increase student engagement, interest in learning, and self-development.

One of the most important aspects of the practical implementation of the revealed results is the development of methodological recommendations for primary school teachers aimed at effectively integrating national values into the process of soft skills formation. Thematic weeks dedicated to national culture, interactive classes on history, literature and the Kazakh language can be organized in educational institutions, as well as mentoring practices between students of different age groups. In addition, it is important to take into account the individual characteristics of each child and create conditions for inclusive education in which each student can develop their skills in accordance with their personal needs and interests.

Thus, the analysis demonstrates that the inclusion of national values in the educational process is not only an effective tool for the formation of soft skills in younger schoolchildren, but also a way to preserve and strengthen national identity. The results obtained can serve as a basis for further research aimed at developing specific educational programs and techniques that integrate ethnocultural elements into the educational process.

Conclusion. In the course of the study, the importance of national values in the formation of soft skills among younger schoolchildren was identified and substantiated. An analysis of existing pedagogical approaches and educational strategies has revealed that soft skills, including critical thinking, communication skills, emotional intelligence and cooperative skills, are an integral part of successful learning and social adaptation of students. At the same time, traditional educational methods do not sufficiently take into account the socio-cultural context in which the child's development takes place. A comparative analysis of international experience has confirmed that in countries with a developed educational system, national values play a key role in education and training. In Finland, autonomy and equality promote critical thinking and individual responsibility. In Japan and South Korea, collective traditions create a favorable environment for the development of teamwork skills and social adaptation. In the USA and China, educational strategies are aimed at developing entrepreneurial thinking, independence and initiative. The experience of these countries shows that the integration of cultural values into the educational process contributes not only to the development of soft skills, but also to the strengthening of students' national identity.

The results of the study confirmed that Kazakhstan's national values, such as language, traditions, historical memory, family values, respect for nature and spiritual norms, have high educational potential and can be effectively used to form soft skills in younger schoolchildren. These values form children's emotional stability, communication skills, social responsibility, and self-confidence. Methods of integrating national heritage into the educational process, such as project-based learning with an ethnocultural component, role-playing, mentoring, folk traditions and national games, have proven effective in developing key competencies of the 21st century. The practical significance of the study lies in the fact that the identified pedagogical strategies and methods can be used in educational institutions of Kazakhstan to improve curricula. The inclusion of national values in the educational process contributes to the creation of a more motivating learning environment in which students realize the connection between their knowledge, cultural heritage and personal development. This not only promotes the development of soft skills, but also creates awareness of national identity, increases educational motivation and strengthens the link between traditional pedagogy and modern educational trends. Thus, the results of the study confirm that the inclusion of national values in the learning process of younger schoolchildren contributes to the development of their soft

skills, making the educational process more meaningful and effective. Further research may be aimed at developing specific methodological recommendations, educational programs and teaching materials that integrate ethnocultural elements into the educational process. In the context of globalization and modernization of education, such a combination of traditions and modern educational technologies can become an important factor in the successful development of the primary education system in Kazakhstan.

References

Akoum, R. (2023). Soft Skills and Graduate Employability: Insights and Research Model. *Communications of International Proceedings*. https://doi.org/10.5171/2023.4227523

Bilous, O. (2024). Soft skills development of primary school teacher of the new Ukrainian school: methodological guidelines. *Aesthetics and Ethics of Pedagogical Action*. 29. 63-75. https://doi.org/10.33989/2226-4051.2024.29.306136

Brackett, M. A., Rivers, S. E., & Salovey, P. (2012). Emotional Intelligence: Implications for Personal, Social, Academic, and Workplace Success. *Social and Personality Psychology Compass*, 5, 88-103. http://dx.doi.org/10.1111/j.1751-9004.2010.00334.x

Central Board of Secondary Education, India (2012). Values education. *CBSE.* Retrieved from https://cbseacademic.nic.in/web_material/ValueEdu/Value%20Education%20Kits.pdf

D'Isanto, Tiziana & Aliberti, Sara & Altavilla, Gaetano & Esposito, Giovanni & D'Elia, Francesca. (2022). Heuristic Learning as a Method for Improving Students' Teamwork Skills in Physical Education. *International Journal of Environmental Research and Public Health.* 19. 12596. https://doi.org/10.3390/ijerph191912596

Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development,* 17(1), 57-89. https://doi.org/10.1207/s15566935eed1701_4

Diamond, A., & Lee, K. (2011). Interventions shown to aid executive function development in children 4 to 12 years old. *Science*, 333(6045), 959-964. https://doi.org/10.1126/science.1204529

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development,* 82(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Fadlin, I., Hendra, H., & Uzunboylu, M. (2024). How Can Pesantren Curriculum Development Keep up with Society's Needs for Life Skills Education?. *Development: Studies in Educational Management and Leadership.* https://doi.org/10.47766/development.v3i1.1915

Feraco, T., Sella, E., Meneghetti, C., & Cona, G. (2023). Adapt, Explore, or Keep Going? The Role of Adaptability, Curiosity, and Perseverance in a Network of Study-Related Factors and Scholastic Success. *Journal of Intelligence*, 11. https://doi.org/10.3390/jintelligence11020034

Finnish National Board of Education. (2016). National Core Curriculum for Basic Education 2014. Retrieved from https://www.oph.fi/en/education-and-qualifications/national-core-curriculum-primary-and-lower-secondary-basic-education

Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. *Labour Economics*, 19(4), 451-464. https://doi.org/10.1016/j.labeco.2012.05.014

Hrona, N., Vyshnyk, O., & Pinchuk, I. (2022). Soft Skills Development in Future Primary School Teacher's Training. *Educational Challenges*, 27(2), 79-90. https://doi.org/10.34142/2709-7986.2022.27.2.06

Jethava, V., Kadish, J., Kakonge, L., & Wiseman-Hakes, C. (2022). Early Attachment and the Development of Social Communication: A Neuropsychological Approach. *Frontiers in Psychiatry*, 13. https://doi.org/10.3389/fpsyt.2022.838950

Linnik, O., Hrynevych, L., & Staragina, I. (2022). Diagnosing Soft Skills in Primary School Students within the Context of the New Ukrainian School Reform. *Revista Romaneasca Pentru Educatie Multidimensionala,* 14(4 Sup.1), 18-35. https://doi.org/10.18662/rrem/14.4Sup1/657

National Governors Association & Council of Chief State School Officers. (2010). Common Core State Standards Initiative. Retrieved from http://www.corestandards.org/ [in English]

OECD (2018). The Future of Education and Skills 2030: The Future We Want. *OECD.* Retrieved from https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf

Okada, A., Panselinas, G., Bizoi, M., Malagrida, R., & Torres, P. (2024). Fostering Transversal Skills through Open Schooling with the CARE-KNOW-DO Framework for Sustainable Education. *Sustainability.* https://doi.org/10.3390/su16072794

Qazaqstan Respublikasy Aǵartý mınıstrligi [Ministry of Enlightenment of the Republic of Kazakhstan] (2022). Bastaýysh bilim berýdiń memlekettik jalpy'ǵa mindetti standarty [State mandatory standard of primary education] (2022 jylǵy 3 tamyzdaǵy № 348 búıryqqa 2-qosymsha mektepke deıingi tárbie men oqytýdyń, bastaýysh, negizgi orta, jalpy orta, tehnıkalyq jáne kásiptik, orta bilimnen keıingi bilim berýdiń memlekettik jalpy'ǵa mindetti standarttaryn bekitý týraly). Retrieved from http://adilet.zan.kz/kaz/docs/V2200029031 [in Kazakh]

Saduakas, G., & Abdurakhmanova, M. (2024). Psychological and pedagogical specifics of the formation of primary school students' "soft skills" on the basis of national values. *Eurasian Science Review: An International peer-reviewed multidisciplinary journal*. https://doi.org/10.63034/esr-78

Surzykiewicz, J., Skalski, S., Sołbut, A., Rutkowski, S., & Konaszewski, K. (2022). Resilience and Regulation of Emotions in Adolescents: Serial Mediation Analysis through Self-Esteem and the Perceived Social Support. *International Journal of Environmental Research and Public Health,* 19. https://doi.org/10.3390/ijerph19138007

Vanhove, A., Opdecam, E., & Haerens, L. (2023). Fostering social skills in the Flemish secondary accounting education: perceived challenges, opportunities, and future directions. *Accounting Education*, 33, 414 – 449. https://doi.org/10.1080/09639284.2023.2208106

교육부 [Ministry of Education] (2015). Cho-jung deung hakgyo gyoyukgwajeong: Gyoyukbu gosi je2015-74ho [The National Curriculum for the Primary and Secondary Schools: Proclamation of the Ministry of Education #2015-74] [Byeolchaek 1] (Gyoyukbu gosi je2018-162ho-e ttareun bubun gaejeong poham). Daehanminguk gyoyukbu [Ministry of Education, Republic of Korea]. Retrieved from http://www.koreaneducentreinuk.org/wp-content/uploads/2021/02/The-National-Curriculum-for-the-Primary-and-Secondary-Schools-2015.pdf [in Korean]

中华人民共和国教育部 [Ministry of Education of the People's Republic of China] (2009). Zhonghua renmin gongheguo jiaoyufa [Education Law of the People's Republic of China] (1995 nian 3 yue 18 ri di ba jie quanguo renmin daibiao dahui di san ci huiyi tongguo, 1995 nian 3 yue 18 ri zhonghua renmin gongheguo zhuxi ling di 45 hao gongbu, zi 1995 nian 9 yue 1 ri qi shixing). Zhonghua renmin gongheguo jiaoyubu [Ministry of Education, PRC]. Retrieved from http://en.moe.gov.cn/documents/laws_policies/201506/t20150626_191385.html [in Chinese]

文部科学省 [Ministry of Education, Culture, Sports, Science and Technology] (2006). Kyōiku kihonhō [Basic Act on Education] (Heisei jūhachi-nen jūnigatsu nijūni-nichi hōritsu dai hyaku-nijū-gō). Nihon koku seifu [Government of Japan]. Retrieved from https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373798.htm [in Japanese]

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DIGITAL COMPETENCE AS AN IMPORTANT ELEMENT OF PROFESSIONAL TRAINING OF EDUCATIONAL PSYCHOLOGISTS IN KAZAKHSTAN

Abstract

This article investigates the problems and prospects of formation of digital competence in the professional training of educational psychologists in Kazakhstan. Modern conditions of digitalization require from teacher-psychologists not only traditional knowledge and skills, but also effective use of digital technologies. It is established that the level of digital competence of students of the educational program "Pedagogy and Psychology" differs from the level of acting school psychologists, which is due to differences in the conditions of training and professional practice. Particular attention is paid to the need to develop specialized educational programs that take into account the peculiarities of the use of digital technologies in the diagnosis and correction of student behavior. The study revealed the main problems, including the insufficient level of digital training, limited use of modern technologies, and the lack of a unified approach to assessing the digital competence of educational psychologists. Based on the results of questionnaires and interviews with students, school psychologists and experts, recommendations for improving educational standards and programs were proposed. The key result of the work was the development of a model for the development of digital competence, which includes stages from the diagnosis of skills to their practical implementation. The presented recommendations are aimed at improving the quality of professional training of educational psychologists, their competitiveness and ability to adapt to the requirements of the digital era. The importance of creating a sustainable support system is emphasized, including mentoring programs, professional communities and access to innovative educational resources. The educational practice and improves the quality of educational services.

Keywords: digitalization; digital competence, professional training, educational psychologists, school psychologists.

Introduction. Universal digitalization of all sectors of social society has led to fact that in the education system, there is a need to develop digital competence, which also includes students of the educational program (here in after EP) "Pedagogy and Psychology", as most of them will go to work after graduation as school psychologists. This is due to the fact that in modern conditions, digital competence becomes an important indicator of professional training of future teachers. The Republic of Kazakhstan, in the process of active entry into the global information space, faces the fact that it is necessary to adapt existing educational standards to new digital conditions. Since in the era of digitalization, teacher-psychologists are required not only to have traditional competencies (knowledge and skills), but also the ability to effectively use digital tools. As they need them both for their own development, to obtain the required information, and for the work they do with students and their parents,

as well as to share their experience with their colleagues.

The relevance of the topic of the study is determined by the fact that in modern conditions of digitalization of the education system of the Republic of Kazakhstan, required from teacher-psychologists to apply new approaches, using digital technologies. Since in the course of their professional activities it is modern technologies that provide opportunities to provide more qualitative services of a teacher-psychologist. Modern digital technologies can be used to conduct distance learning, to create innovative educational platforms and to use more effective interactive methods of diagnostics and behavior correction of schoolchildren. However, the level of digital literacy among individual educational psychologists in the Republic of Kazakhstan remains low, which leads to some problems when introducing new digital technologies into the teaching process.

The main issues that need to be addressed in the area of digital competence as an element of professional training are

− limited use of modern information technologies in the work of schools and universities in Kazakhstan

− insufficient level of digital training of future educational psychologists, with a focus on the application of digital technologies in teaching practice

− Lack of a unified methodological approach to the assessment of digital competence, taking into account the peculiarities of the work of pedagogical psychologists.

The scientific significance of the study consists in expanding the theoretical basis for the research topic and developing proposals for the formation of a high level of digital competence in future teacher-psychologists. Since the improvement of the quality of digital training of teacher-psychologists contributes to the improvement of their professional qualities and competitiveness in the education market.

The purpose of the study is to consider the state and prospects of development of digital competence of pedagogical psychologists in Kazakhstan, and to develop recommendations for its formation in the process of professional pedagogical education.

Objectives of the study:

− Analysis of existing scientific and legislative approaches to the definition of the concepts of "digital competence" and "professional preparedness" and their application to educational psychologists;

− Evaluate the level of digital competence in the training of educational psychologists

− To determine the need for the development of digital competence in students of educational psychologists;

− To offer recommendations for improving the professional training of educational psychologists taking into account the requirements of modern digitalization.

The following research methods were used to solve the identified problems: literature analysis of literature and normative documents; survey of students of EP "Pedagogy and psychology", school psychologists and interviews with experts in the field of digital education; statistical, analytical and modeling methods.

Materials and Methods. Digitalization is usually understood as the replacement of the previous physical (analog) systems of information collection and processing with new systems in technological terms, which generate, transmit and process information through digital signals and report on these processes at all stages of their activities (Fernández-Batanero et al., 2020). It should be noted at once that in the country this concept has not yet been officially defined by law, only provided for in the state program "Digital Kazakhstan" (2017) as a target benchmark. This target benchmark states that digitalization includes projects on technological re-equipment of all sectors of the economy and government agencies. All this tells us that digitalization should be implemented in the education system.

I. Reisoglu, understands digital competence as understanding or possessing the methods of searching for information using the global Internet and digital technologies, as well as structuring, systematizing, and critically evaluating it. Provided that such information

is used to solve educational, practical, and professional tasks of different formats (Reisoglu, 2021). This definition is considered incomplete, as it does not include the condition of self-safety, which is required when using digital technologies or when introducing human competencies into the digital space. Another interesting position, taking into account the axiological approach, is that of E. Garzón-Artacho, according to which special attention is paid to personal subjectivity, manifested during the formation of digital competences (Garzón-Artacho, 2021). This definition of digital competence is also recognized by M. Montenegro-Rueda, because of the necessity to form conditions that correspond to the formation of a modern personality, which has the ability to perform its activities in the digital space, without violating legal and moral norms and rules (Montenegro-Rueda, 2022).

E. Artacho defines digital competence more fully, referring to the research conducted jointly with T. Martínez, J. Martín. They define digital competence as a person's ability to actively implement digital technologies and use them in order to produce new digital products on their basis (Artacho et al., 2020). It is also possible to take into account the opinions of B. Anthony, A. Kamaludin, A. Romli et al. who believe that digital competence expresses the level of effective application of digital technologies in practice. Their rationality will allow us to take into account the following criteria characterizing digital competence: the speed of digital functionality; fruitfulness and efficiency of information retrieval; unrestricted use of functionality by digital devices; financial and other operations on global markets. Provided they are carried out with the help of digital technologies (Anthony, 2022).

The level of digital competence of an individual depends on his/her experience in the use of digital information technologies, as well as on his/her profession and level of education. M. Peters, A. Ejjaberi, J. Martínez, S. Fàbregues propose to consider digital competence according to the following structure: informational digital; communicative digital competence; technical digital competence; media digital competence; consumer digital competence (Peters et al., 2022).

Professional preparedness or readiness of an individual specialist for his/her activity in the profession is also defined in scientific literature in different ways. In general, two common meanings can be distinguished in pedagogical and psychological literature

− The orientation, positive attitude or consent of a person to perform a certain activity (Antwi-Boampong, 2022);

− A complex state that assists the individual in the rational performance of occupational activities (Revuelta-Domínguez, 2022).

The formation of professional readiness occurs in several stages:

− vocational aptitude determination;

− development of professional preparedness (Romero-García, 2020).

Students of EP "Pedagogy and Psychology", as specialists in the field of education, should have certain skills that are required to perform the functions arising from their profession and the main thing is that they should be able to present them to other people (students and their parents, school staff). The main criteria of professional competence are (Cukurbasi et al., 2018): qualification in the profession and practical experience; personal motivation for this professional activity; demotivating components; professional vocation; personality qualities expressed in talent in relation to this profession; professional orientation of personality; operational component expressed in the ability to organize educational and training process; psychological preparation for professional activity(Skantz-Åberg et al., 2022). The same opinion is held in the course of the study of the peculiarities of high school students' opinions regarding the use of inverted classroom techniques and LEG practices by teachers by (Anthony, 2021).

G.K. Sholpankulova and M. Ermekova writes about the relationship between digital competence and professional preparation of future teacher-psychologists, revealing the structure and content of their digital competence. In this case, the authors point out that in the conditions of modernization of the Kazakhstani

education system, resulting from actively changing information educational environment, one of the main elements is the digital competence of future teachers. The importance of the unity of theoretical and practical training of teacher-psychologists for the realization of professional activity in new conditions is noted. The authors point out that the structure of digital competence of pedagogical psychologists includes the following components: cognitive; activity; personal-motivational; reflexive-evaluative (Sholpankulova, 2023).

D. Marín-Suelves believe that the formation of digital competence is a necessary condition in the modern training of future teachers. And they propose to form a model of formation of diagnostic competence for future teachers-psychologists, which follows from the peculiarities of this profession (Marín-Suelves, 2020).

The analysis of the legal and regulatory framework of the RK has shown that the strategic task of increasing digital literacy and developing digital competence at all levels of education was for the first time in the program "Digital Kazakhstan" (2017). Within the framework of the State Educational Standards of the Republic of Kazakhstan (2022) and especially the Concept of modernization of teacher education of the Republic of Kazakhstan (2022). It identifies the main problems and the main directions of development of digital and professional competencies in Kazakhstani teachers, focusing on foreign experience. N. Stukalenko notes the role and place of ongoing projects aimed at improving the system of teacher education in the new reality of Kazakhstan. Such projects are usually financed by the Ministry of Education and Science of the Republic of Kazakhstan. example, in 2021-2023, measures on formation of digital competencies of future teachers were realized (Stukalenko, 2021). They are aimed at the development of technological and methodological issues of formation of digital competencies of future teachers in the conditions of distance education. Within its framework, the following innovative works were carried out in the RK: smart-pedagog.kz (educational pedagogical portal) was opened; the online department "smart-pedagog" was created; a mobile application of online testing "Smart-future "was created; an international online competition "My first online lesson" was held for future teachers; a scientific conference was organized; an online course for future teachers, 72 hours on the topic "Distance learning technologies" was organized; an international congress "Distance education" was organized; a scientific-practical seminar was held. The author points out that it is necessary and important to train future teachers in Kazakhstan who will have high digital competencies, be creative and competitive, both at the national and international level. A. Turlankyzy, point out the development of digital competencies of a teacher within the framework of digital universities, indicating the importance of their development in Kazakhstan (Turlankyzy, 2021).

Overall, the literature and normative analysis points to the need to develop digital competence in educational psychologists using different forms of professional preparedness.

It is based on a comprehensive analysis, using several research methods and organized in stages.

Literature analysis of sources, consisting in a review of: scientific literature of scientific articles, monographs and other sources on the topic of the study; legislative and normative acts on the issues of training of educational psychologists and digital competence. Literature analysis made it possible to establish the existing approaches to the research questions we described above and identify the existing problems.

The review of legislative acts and normative documents (laws, State compulsory standard of higher education, programs of professional training of pedagogical psychologists) made it possible to establish problematic issues of digital competence in pedagogical universities and in particular at the EP "Pedagogy and psychology".

The pedagogical experiment was based on the method of survey in the form of questionnaires, which was conducted among students of EP "Pedagogy and psychology" (42 people) and school psychologists (28 people). The questionnaires included questions to assess

the level of knowledge of digital technologies, attitudes towards digital technologies in the education system, as well as the needs for the development of digital competence.

Survey in the form of an interview. The survey was conducted with experts in the field of digital education (6 university teachers). The in-depth survey provides an opportunity to obtain more qualitative data on how digital technologies are implemented in the process of teaching future educational psychologists and on the problems that exist in this direction.

Statistical and analytical methods are used to process the data obtained from the survey results. Microsoft Excel computer program is used for quantitative analysis and data processing. With its help, the levels of digital competence among students of Pedagogy and Psychology, school psychologists and experts were established.

The modeling method was used to develop recommendations in the form of a model for the development of digital competence in educational psychologists, taking into account the specifics of professional training in the Republic of Kazakhstan.

The study was conducted in several stages: preparatory; diagnostic; data processing and analysis; development of proposals; discussion of results and conclusion.

Results. The results of the questionnaire survey of future educational psychologists on the level of digital technology proficiency (low to high), types, frequency of use, attitudes (low to high) and needs are reflected in Table 1.

Table 1. *Results of the survey of future pedagogical psychologists (42 persons)*

Question	Answer options	Quantity	Share in %
Level of digital proficiency	Low	5	11,9
	Medium	15	35,7
	Above average	17	40,5
	Tall	5	11,9
Frequently used digital tools	Email	25	59,5
	Social media	38	90,3
	Educational platforms	35	83,3
	Online courses	12	28,6
	Presentations	30	71,4
	Specialized programs	7	16,7
	Others	3	7,1
The importance of using digital technologies in learning	Low	0	
	Medium	10	23,8
	Above average	22	52,4
	Tall	10	23,8
Do digital technologies help to improve the quality of the educational process?	Yes	32	73.2
	No	2	4,8
	I can't answer that	8	19
Willingness to take additional courses	Yes	27	64,3
	No	5	11,9
	Perhaps	10	23,8
Skills you would like to develop	Use of specialized programs	18	42,9
	Working with educational platforms	20	47,6
	Creation of multimedia materials	23	54,8
	Conducting remote consultations	16	38,1
	Organization of online courses	11	26,2
	Others	2	4.8

More than half of the students of Pedagogy and Psychology (52.4%) assess their level of digital skills as average or above average, which indicates a sufficient level of training. However, about 12% of students still have difficulties and rate their skills as low.

The highest preference of students is given to social networks (90.3%) and e-mail (83.3%), which reflects the usual ways of communication for young people. Educational platforms (59.5%) and presentation creation (71.4%) are also highly popular, which is related to the educational process. Specialized programs are still used by only a small proportion of students (16.7%).

The vast majority of students (76.2%) recognize the high importance of using digital technologies in learning, which demonstrates an understanding of the importance of digital skills in today's world.

The majority of students (73.2%) are confident that digital technologies improve the quality of the educational process, which confirms their positive attitude towards the introduction of innovations.

Almost two-thirds of students (64.3%) are interested in taking additional courses in digital learning, indicating a high level of motivation for self-improvement in this area.

Most of all students are interested in skills of creating multimedia materials (54.8%) and working with educational platforms (47.6%), which corresponds to modern trends in education and labor market requirements.

The results of the questionnaire survey of school psychologists on digital proficiency (low to high), types, frequency of use, attitudes (low to high) and needs are reflected in Table 2.

Table 2. *Results of the survey of school psychologists (28 persons)*

Question	Answer options	Quantity	Share in %
Level of digital proficiency	Low	3	10,7
	Medium	14	50
	Above average	9	32,1
	Tall	2	7,1
Frequently used digital tools	Email	24	85,7
	Social media	19	67,9
	Educational platforms	13	46,4
	Online courses	7	25
	Presentations	21	75
	Specialized programs	5	17,9
	Others	2	7,1
The importance of using digital technologies in learning	Low	2	7,1
	Medium	12	42,9
	Above average	11	39,3
	Tall	3	10,7
Do digital technologies help to improve the quality of the educational process?	Yes	20	71,4
	No	4	14,3
	I can't answer that	4	14,3
Willingness to take additional courses	Yes	15	53,6
	No	7	25
	Perhaps	6	21,4
Skills you would like to develop	Use of specialized programs	10	35,7
	Working with educational platforms	12	
	Creation of multimedia materials	14	
	Conducting remote consultations	9	
	Organization of online courses	7	
	Others	1	

The majority of school psychologists (82.1%) rate their digital skills as average or above average, indicating a good foundation. However, almost every tenth psychologist (10.7%) considers their skills to be low, which may indicate the need for additional training.

Just like students, psychologists most often use email (85.7%) and social media (67.9%).

They also actively create presentations (75%) and work with educational platforms (46.4%). Specialized programs are not yet widespread (17.9%).

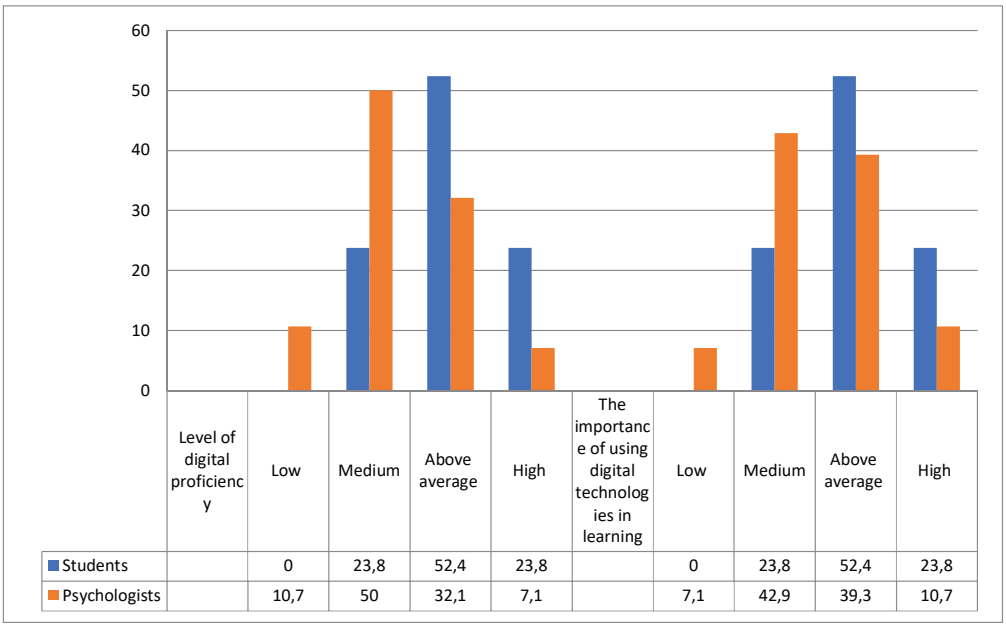
A smaller percentage of psychologists (51.8%) rate the importance of digital technology as high or above average compared to students, which may suggest some conservatism or lack of awareness of the possibilities of digital technology.

Psychologists are less optimistic than students about the impact of digital technologies on the quality of the educational process. Only 71.4% believe that they really improve the process, which leaves room for doubt for the rest.

About half of psychologists (53.6%) are willing to take additional courses on digital learning, indicating a willingness to update their knowledge, but less enthusiasm compared to students.

Skills they would like to develop: similar to students, psychologists show the greatest interest in creating multimedia materials (50%) and working with educational platforms (42.9%), emphasizing the universal need for these skills regardless of status (student and/or current professional).

The results of the comparative analysis by individual indicators are shown according to Figure 1.



	Level of digital proficiency	Low	Medium	Above average	High	The importance of using digital technologies in learning	Low	Medium	Above average	High
Students		0	23,8	52,4	23,8		0	23,8	52,4	23,8
Psychologists		10,7	50	32,1	7,1		7,1	42,9	39,3	10,7

Figure 1: Results of comparative analysis of students and psychologists

A comparison of the results obtained from students and psychologists showed that students' digital skills are on average above average (52.4%), about a quarter (23.8%) consider them high, and no student rated their skills as low. Such indicators suggest a good level of digitalization development among young people. Psychologists, have a more uneven distribution: a significant proportion of psychologists (50%) rate their skills as average, and almost one in ten (10.7%) consider their skills as low. This indicates that there is a need for additional training for some school psychologists.

Comparison of the importance of using digital technology in learning. Students in general attach great importance to the use of digital technology in learning: more than half (52.4%) rate the importance as high or above average, indicating a deep understanding of the benefits of digital technology. Psychologists show less confidence in the importance of digital technology: a large proportion (42.9%) rate the importance as medium, and only a small proportion (10.7%) see high benefits. This may mean that psychologists either underestimate the potential of digital technologies or find it difficult to apply them.

Discussion. Results of experts' answers to the interview questions: Your general impressions about the introduction of digital technologies in the training of students of Pedagogy and psychology? What specific digital tools and platforms do you find most useful for the training of pedagogical psychologists? What problems arise when implementing digital technologies in the learning process? How can the level of digital competence of students of the EP "Pedagogy and psychology" be improved? Are there differences between digital competence requirements for students and school psychologists? What international trends in digital education do you observe and how do they affect the training of pedagogical psychologists in Kazakhstan? What role do digital technologies play in the practical training of educational psychologists? What, in your opinion, needs to be changed in the system of training educational psychologists to better meet the requirements of the digital age? How teachers and educational leaders can contribute to the development of digital competence of their students? Your vision of the future of digital education in Kazakhstan, in the context of training pedagogical psychologists?

Results of a survey-interview of experts in the field of digital education.

To the first question: general impressions about the introduction of digital technologies in the university. Received generally positive impression, but noted at the same time: a number of problems, mainly such as insufficient equipment.

To the second question regarding useful digital tools. The experts identified the most useful ones as: educational platforms (AI, Moodle, Google Classroom), online courses and presentation creation programs.

To the third question, what are the main problems in implementing digital technologies, the following answers were received from experts: technical barriers; some resistance from students; lack of funding for additional training of school psychologists.

On the fourth question, how can the level of digital competence be increased. Experts suggested: including special courses; changing the teaching methodology; increasing the motivation of school psychologists.

Regarding the differences in the requirements for digital competence, experts note that school psychologists, in comparison to students, are more in need of practice-oriented skills.

On the transfer of experience from abroad, it is indicated that it is necessary and possible, but it necessarily requires their adaptation to local conditions.

On the role of digital technologies in the practical training of school psychologists, experts point out the possibilities for simulations and virtual environments, as well as improved interaction with students and their parents, as well as with the school staff.

New educational standards, curricula, increased resources and support programs are considered necessary changes in the training system by experts.

The contribution of teachers and supervisors, according to them, is to support the active use of technology, which motivates self-development.

Visions for the future of digital education: the growing importance of digital technologies and the need to keep knowledge and skills up-to-date.

The specifics of using digital technologies in the work of school psychologists should be manifested in the need to develop specialized programs and special technologies for diagnosing and correcting student behavior.

The model of developing digital competence in educational psychologists in the Republic of Kazakhstan is schematically presented below and includes five main stages (Fig. 2).

The model of developing digital competence of educational psychologists in Kazakhstan includes five key stages that provide a systematic approach to improving their professional readiness in the conditions of digitalization. Each of the stages is aimed at step-by-step formation, strengthening and application of digital skills necessary for effective professional activity.

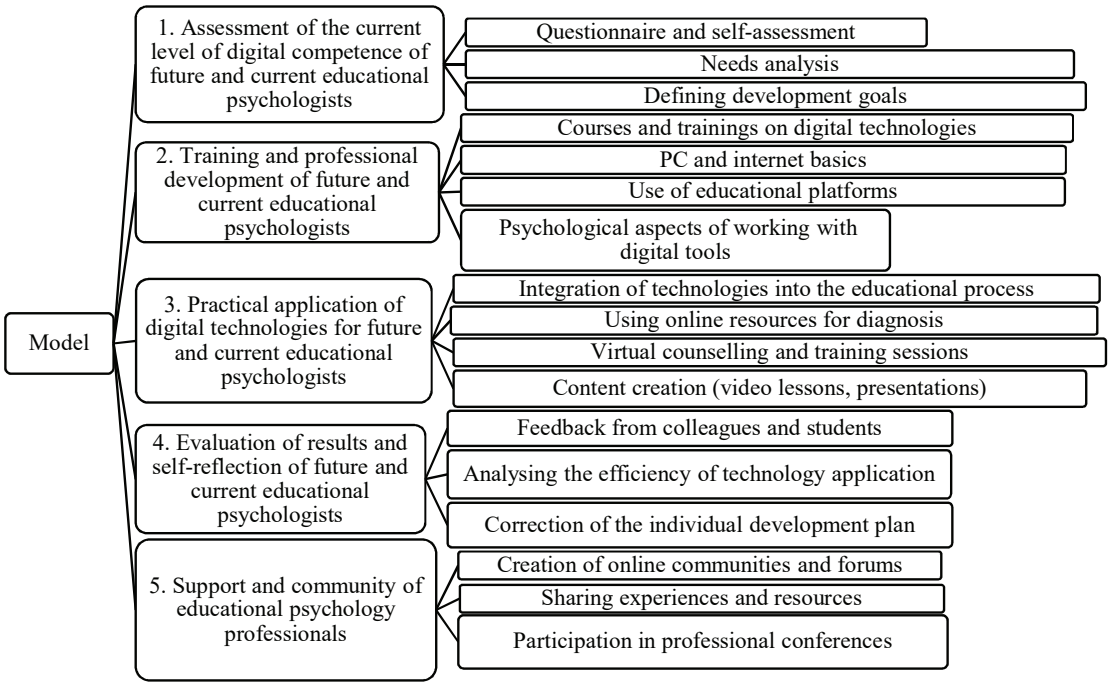


Figure 2: Model of digital competence development in future and current educational psychologists in the Republic of Kazakhstan

The first stage involves diagnosing the existing digital knowledge and skills of educational psychologists. This stage includes the use of various methods such as self-assessment, questionnaires and testing. The main goal is to identify strengths and weaknesses, as well as to identify areas that require development. This process helps to form individual educational trajectories and develop suitable training programs.

At the second stage, active training of educational psychologists is carried out, which is aimed at eliminating the identified gaps. For this purpose, specialized educational courses and trainings aimed at mastering the following skills are developed and implemented:

− Working with educational platforms and digital tools (Moodle, Google Classroom and others).

− Creating multimedia materials (presentations, video lectures).

− Use of specialized programs to diagnose and correct student behavior.

− Digital security and work ethics. The training format can be both face-to-face and distance learning, which allows for the individual needs of educators to be taken into account.

The third stage is focused on the integration of the acquired knowledge and skills into real professional activity. At this stage pedagogical psychologists:

− Introduce digital tools in the process of diagnosis, counseling and training.

− Utilize online resources for class and counseling sessions.

− Create and adapt digital materials for individual and group work with students. The main goal of this stage is to make the use of digital technologies an integral part of the daily practice of educational psychologists.

At the stage of evaluation of results and self-analysis, the effectiveness of the use of digital technologies in professional activities is analyzed. Methods such as collecting feedback from students, parents and colleagues, analyzing the data and self-evaluation of teachers are used. This process identifies achievements, identifies areas for further improvement and adjusts approaches to the use of digital tools. The results of the analysis help to adapt training and technology implementation to the real needs of the educational environment.

The last stage aims to create a sustainable system of support and professional interaction

among educational psychologists. Within the framework of this stage:

− Professional communities are being formed where educators can share experiences, best practices and receive advice.

− Master classes, webinars and conferences are organized to enhance knowledge and master new technologies.

− Regular updating of educational programs and technical equipment is carried out.

− Mentorship programs are being established where experienced professionals help newcomers to master digital technologies.

This support allows educational psychologists to stay up-to-date with the latest innovations, develop their skills, and strengthen professional relationships

As part of the discussion of the results of the questionnaire survey, a comparative analysis of all the results obtained was carried out. The comparison showed that future pedagogical psychologists demonstrate a slightly higher level of digital proficiency than current psychologists, which is natural given their age and access to modern technologies. It is important to note, however, that both groups require further growth in digital proficiency as they are constantly evolving

Both students and psychologists actively use digital tools such as social media and making them the primary means of communication and information sharing. But educators are less likely to engage with modern educational platforms and online courses, perhaps due to a lack of proper support and access to these resources

Students are more appreciative of the importance of digital technology in learning and support the idea of extensive use of digital technology in learning, which may be related to their greater openness to innovation. Psychologists are likely to recognize the importance but may not always find the opportunity to put this into practice

The usefulness of digital technologies for the process is mostly noted by the students of Pedagogy and Psychology. According to the survey, they are overwhelmingly convinced of the benefits of digital technologies, unlike psychologists. Since there are ambiguous opinions among the latter, which may indicate the need to raise awareness of psychologists about the benefits of digital technologies and their practical experience

Students, future psychologists, show more interest in taking additional courses on digital learning, which indicates a greater desire for constant self-actualization and adaptation to change, which is characteristic of the new generation. While school psychologists are also, interested, but not all psychologists have the desire to learn independently digital technologies

Both students and psychologists identify the following priorities in skills development: the importance of creating multimedia materials and working with educational platforms, which reflects the current needs of the modern education system. The identified priorities indicate it is necessary to include special educational courses and training programs for both students and retraining of school psychologists.

The findings are supported by the survey data, as students show a more confident level of mastery of digital technologies and attach more importance to their use in learning, which indicates their readiness for new challenges and technologies. Psychologists, although they have an average level of digital skills, do not always fully realize the potential of digital technologies and their impact on their workflow. All this allows us to say that it is important to improve the qualifications of psychologists.

It is worth outlining the main reasons why students assess their level of digital technology proficiency higher than psychologists. Modern students, including students of OP “pedagogy and psychology”, tend to interact actively from an early age with modern digital technologies. Students often feel more confident in using digital technologies than psychologists who began their careers at a time when digital technologies did not play such an important role in their lives. On this basis, young people have higher levels of digital competence, as they are able to quickly learn new digital devices and educational digital applications, they are willing and able to learn independently and will, be able

to use them in their profession. While among current psychologists, there are members of the older generation, they are used to traditional methods of work and many consider such methods more personal and individualized, which explains their tendency to underestimate the potential of digital technologies.

According to the results of interviews given by experts in the field of digitalization of education, it should be noted that in the future the importance of digital technologies is expected to grow, which will require constant updating of knowledge and skills, including in the work of school psychologists. All experts (100%) agree that the importance of digital technologies is expected to grow in the future, which will require constant updating of knowledge and skills.

Let us note the main factors that hinder the widespread introduction of digital technologies in the practice of educational psychologists: lack of knowledge and skills of individual psychologists in the field of digital technologies, which reduces their willingness to use these tools in their work; some school psychologists have psychological barriers to new technologies, expressed in the fear of losing control over the processes of personal communication with students and parents; there is a lack of qualified specialists in schools for technical support of digital education; the lack of qualified specialists in schools for technical support of digital education; the lack of qualified specialists in the field of digital education; the lack of qualified specialists in schools for technical support of digital education; the lack of qualified specialists in the field of digital education; the lack of qualified specialists in the field of digital education.

When discussing the model, it is important for each educational psychologist to conduct a self-assessment of their digital skills and knowledge at the first stage. It is also necessary to constantly undergo various types of training and professional development to master new technologies and methods of their application in the educational process. At the same time, it is necessary to take into account the specific features of the field before introducing digital tools into the practice of the school psychologist. During the practical application of digital technologies for diagnostics, using online resources, it is necessary to create adapted training materials, conduct preliminary virtual consultations, which will improve the quality of interaction with students. After the practical application of digital technologies, it is important to evaluate their effectiveness using feedback. This will provoke to adapt approaches to the use of digital tools in the practice of future educational psychologists. And, of course, an important element in the development of digital competence should be the support of specialists, participation in professional development courses, sharing best practices, and so on.

More detailed recommendations for improving the digital competence of educational psychologists in the Republic of Kazakhstan, as a whole, have also been developed:

1. Update educational standards, curricula and curricula of pedagogical psychologists. Within their framework, provide for the integration of modular digital components into specialized psychological courses.

2. Study of international experience in the course of interaction with international partners and its adaptation in the national education system.

Based on the peculiarities of the training of educational psychologist, it is suggested to necessarily ensure a balance between traditional and digital components, follows:

1. Avoid imbalances in training:

- preservation of personal meetings and live communication of the educational psychologist, especially in situations requiring personal contact;

- combining traditional methods with digital technologies, for example, combining face-to-face meetings with remote meetings, thus maintaining the personal touch while taking advantage of digital technologies;

- monitoring and timely evaluation of the quality of the results obtained to ensure that the use of digital technologies does not lead to a decrease in the quality of the educational process.

2. Competitively for educational psychologists is offered:

- Provide regular refresher courses where they can gain skills in the latest digital technologies in education and psychology;

- Form professional communities that include school psychologists in which psychologists can discuss their own and others' experiences, successes and failures, and receive advice on digital technologies;

- integrate digital technologies into daily practice and show successful examples of their use to other educators;

- organize consultations and workshops where they can get advice and support on how to use digital technologies;

- provide access to specialized software for diagnosis and behavioral interventions that will facilitate the transition to digital technologies in daily practice;

- maintain constant updating of software and provide opportunities to take courses to master new versions of programs;

- offer to participate in webinars and online courses that allow you to learn new skills without having to leave the workplace;

- broaden the outlook by attending international conferences and seminars and participating in international projects.

3. For future educational psychologists, it is recommended:

- integrating digital technologies into the: using digital tools to create multimedia materials; for behavioral diagnostics and distance consultations;

- practical training and internships: in schools and kindergartens, where students will be able to apply their knowledge in practice, working with children and teenagers using digital technologies;

- include laboratory sessions where students can learn how to work with various digital tools and platforms necessary for future professional activities;

- support and mentoring: mentors or supervisors help students learn specialized digital pedagogical technologies in education;

- create student communities of exchange, utilizing digital technologies in education;

- provide students with access to good educational resources and, and encourage students to explore them independently and actively apply them in their academic.

The proposed recommendations are aimed at the following most important digital technologies for the successful professional activity of future educational psychologists:

- skills in working with digital educational platforms, expressed in more effective use of e-learning document management systems, distance learning, and interaction of teacher-psychologist with students and their parents;

- use of multimedia materials that help to compile presentations, video consultations and other content aimed at improving the quality of services of the pedagogical psychologist;

- use of specialized programs for diagnostics and correction of students' behavior, which help to conduct special psychodiagnostic tests;

- organization of online counseling work and provision of psychological assistance via the Internet for certain categories of students and under certain conditions when students are remote from the educational psychologist.

- mastering specialized digital programs developed for educational psychologists that make it easier, for example, to prepare reports and maintain documentation, to perform their other tasks that are usually considered routine.

Conclusion. The analysis of existing scientific and legislative approaches to the definition of basic concepts regarding their application to educational psychologists has shown that digital competence is understood as digital literacy, which is expressed in a set of digital skills and abilities, showing the readiness of a person to use digital technologies and devices more effectively. Digital competence helps to solve different kinds of both professional and everyday activities in which they work with information, while ensuring their safety. The objective of professional training is to prepare future educational psychologists in Kazakhstan who will have high digital competencies, be creative and competitive, both nationally and internationally. Assessment of the level of digital competence in the process of teacher-psychologist training showed higher indicators for students and lower indicators for teachers, which can be explained by the peculiarities of

their development in different conditions and different understanding of the specifics of the profession of teacher-psychologist. The need for the development of digital competence in the students of the Pedagogy and Psychology program has been determined. The opinions of students and school psychologists agree in understanding the importance of digital technologies, but their perception of the degree of influence of these technologies on the educational process and readiness for additional training differs. Many experts emphasize the specifics of using digital technologies in the work of educational psychologists and point to the need to develop specialized programs and tools that include a focus on diagnosing and correcting student behavior. Recommendations for improving the professional training of future teacher-psychologists and school psychologists taking into account the requirements of modern digitalization are proposed. The model of development of digital competence of teacher-psychologists in the Republic of Kazakhstan is developed**,** which is aimed at forming a comprehensive approach to the development of digital competence of teacher-psychologists, while it is important to take into account the specifics of their professional training and the needs of the educational system of Kazakhstan. The scientific significance of the research consists in expanding the theoretical basis for the research topic and developing proposals for the formation of a higher level of digital competence in students of the EP "Pedagogy and psychology". Since improving the quality of digital training of pedagogical psychologists contributes to the improvement of their professional qualities and competitiveness in the labor market. The main directions of further research in this area may include: assessing the impact of digital competencies on the career development of educational psychologists; studying the effectiveness of the introduction of new methods of training to improve the level of digital competence of future educational psychologists and school psychologists**;** developing standards and criteria for assessing digital competence, taking into account the specifics of the activities of educational psychologists.

References

Abdigapbarova, U., Zhienbaeva, N. (2021). Nauchno-metodicheskie rekomendacii sovershenstvovaniya professional'noj podgotovki budushchego uchitelya na osnove studentocentrirovannogo obucheniya v usloviyah cifrovoj sredy [Scientific and methodological recommendations for improving the professional training of a future teacher on the basis of student-centred learning in a digital environment]. Pedagogika i psihologiya: nauchno-metodicheskij zhurnal – Pedagogy and Psychology: scientific and methodological journal, 2(47), 31–40: DOI: 10.51889/2021-2.2077-6861.03 [in Russian]

Aimagambetov, A. (2022). Standart doshkol'nogo vospitaniya i obucheniya, nachal'nogo, osnovnogo srednego i obshchego srednego, tekhnicheskogo i professional'nogo, poslesrednego obrazovaniya [The standard of preschool education and training, primary, basic secondary and general secondary, technical and vocational, post-secondary education]. Utverzhden prikazom Ministra obrazovaniya Respubliki Kazahstan ot 3 avgusta 2022 goda № 348. – Approved by the Minister of Education of the Republic of Kazakhstan on August 3, 2022 No. 348. https://adilet.zan.kz/kaz/docs/V2200029031 [in Russian]

Anthony B., Kamaludin A., Romli, A. et al. (2022) Blended Learning Adoption and Implementation in Higher Education: A Theoretical and Systematic Review. *Technology, Knowledge and Learning,* 27, 531-578

Antwi-Boampong, A., Bokolo, A.J. (2022) Towards an Institutional Blended Learning Adoption Model for Higher Education Institutions. *Technology, Knowledge and Learning*, 27, 765-784

Artacho, E., Martinez, T., Martin, J., Marin, J., & Garcia, G. (2020). Teacher Training in Lifelong Learning – The Importance of Digital Competence in the Encouragement of Teaching Innovation. *Sustainability*, 12, 1-13. https://doi.org/10.3390/su12072852

Fernández-Batanero, J., Montenegro-Rueda, M., Fernandez-Cerero, J., & Garcia-Martinez, I. (2020). Digital competences for teacher professional development. Systematic review. *European Journal of Teacher Education*, 45, 513 – 531. https://doi.org/10.1080/02619768.2020.1827389

Garzon-Artacho, E., Sola-Martinez, T., Romero-Rodriguez, J., & Gomez-Garcia, G. (2021). Teachers' perceptions of digital competence at the lifelong learning stage. *Heliyon*, 7, 1-8. https://doi.org/10.1016/j.heliyon.2021.e07513

Marín-Suelves, D., Lopez-Gomez, S., Castro-Rodriguez, M., & Rodriguez-Rodriguez, J. (2020). Digital Competence in Schools: A Bibliometric Study. *IEEE Revista Iberoamericana de Tecnologias del Aprendizaje*, 15, 381-388. https://doi.org/10.1109/RITA.2020.3033207

Montenegro-Rueda, M., & Fernandez-Batanero, J. (2022). Digital Competence of Special Education Teachers: Impact, Challenges and Opportunities. *Australasian Journal of Special and Inclusive Education*, 46, 178 – 192. https://doi.org/10.1017/jsi.2022.8

Peters, M., Ejjaberi, A., Martinez, J., & Fabregues, S. (2022). Teacher digital competence development in higher education: Overview of systematic reviews. *Australasian Journal of Educational Technology*, 38(3), 122-139. https://doi.org/10.14742/ajet.7543

Reisoglu, I. (2021). How Does Digital Competence Training Affect Teachers' Professional Development and Activities. *Technology, Knowledge and Learning*, 27, 721-748. https://doi.org/10.1007/s10758-021-09501-w

Revuelta-Dominguez, F., Guerra-Antequera, J., Gonzalez-Perez, A., Pedrera-Rodriguez, M., & Gonzalez-Fernandez, A. (2022). Digital Teaching Competence: A Systematic Review. *Sustainability*, 14, 1-15. https://doi.org/10.3390/su14116428

Romero-Garcia, C., Buzon-Garcia, O., & De Paz-Lugo, P. (2020). Improving Future Teachers' Digital Competence Using Active Methodologies. *Sustainability*, 12(18), 1-15. https://doi.org/10.3390/SU12187798

Sagintayev, B. (2017). Gosudarstvennaya programma "Cifrovoj Kazahstan" [The State program "Digital Kazakhstan"]. Utverzhdena postanovleniem Pravitel'stva RK №827 ot 12.12.2017 – Approved by the Decree of the Government of the Republic of Kazakhstan 12.12.2017 https://adilet.zan.kz/kaz/docs/P1700000827 [in Russian]

Sholpankulova, G.K., Ermekova, M., (2023). Struktura i soderzhanie cifrovoj kompetencii budushchih pedagogov-psihologov [Structure and content of digital competence of future educational psychologists]. Journal "Pedagogy and Psychology" 3(78), 20–29. https://doi.org/10.51889/1728-5496.2023.1.76.003 [in Russian]

Skantz-Aberg, E., Lantz-Andersson, A., Lundin, M., & Williams, P. (2022). Teachers professional digital competence: an overview of conceptualisations in the literature. *Cogent Education,* 9, 1-23. https://doi.org/10.1080/2331186X.2022.2063224

Smailov, A. (2022). Koncepciya modernizacii pedagogicheskogo obrazovaniya Respubliki Kazahstan [The concept of modernization of pedagogical education in the Republic of Kazakhstan]. Utverzhdeno Ministerstvom nauki i vysshego obrazovaniya Respubliki Kazahstan – Approved by the Ministry of Science and Higher Education of the Republic of Kazakhstan https://adilet.zan.kz/kaz/docs/P2200000941 [in Russian]

Stukalenko, N., Imanova, A., Mukanova, R. (2021). Professional'noe razvitie pedagogov v usloviyah cifrovizacii obrazovaniya [Professional development of teachers in the context of digitalisation of education]. Pedagogika i psihologiya: nauchno-metodicheskij zhurnal – Pedagogy and Psychology: scientific and methodological journal, 1(46), 79–85: DOI: 10.51889/2021-1.2077-6861.10 [in Russian]

Turlankyzy, A., & Syzdykbayeva, A. D. (2021). Zhanartylan bilim beru mazmunyndagy bolashak bastauish synyp mugaliminin kasibi kuzyrettiligi [Professional competence of the future primary school teacher in the conditions of education renewal]. Pedagogika zhane psikhologiya – Pedagogy and Psychology, 4(49), 138-147. https://doi.org/10.51889/2021-4.2077-6861.16 [in Kazakh]

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MODEL OF DEVELOPING STUDENTS' STRESS RESILIENCE IN THE DIGITAL EDUCATIONAL ENVIRONMENT OF A UNIVERSITY

Abstract

The research develops and theoretically substantiates a model for developing stress resilience in students within a university's digital educational environment. The structure of the model is represented by four interconnected and interdependent components: the target component (determining the strategic direction of the process), the content component (revealing cognitive, emotional-regulatory, and behavioral blocks of stress resilience development), the technological component (represented by a system of adaptive-preventive technologies), and the performance-evaluation component (including criteria and levels for assessing stress resilience). Special attention is given to innovative adaptive-preventive technologies as the instrumental basis for developing stress resilience, including: monitoring of psycho-emotional states, interactive trainings and virtual simulators, intelligent systems for filtering information flow, and workshops on digital hygiene. The study identifies and scientifically substantiates pedagogical conditions for developing students' stress resilience in a university's digital educational environment: creating a psychologically safe digital educational environment; integrating health-preserving technologies into the digital educational process; providing psychological and pedagogical support for students; and developing adaptive capabilities of learners in the digital educational space. The proposed model ensures systematicity, continuity, and effectiveness in the process of developing stress resilience, contributing to the development of students' competencies for effective functioning in a digital educational environment while maintaining psychological well-being.

Keywords: stress tolerance of students, the digital educational environment of the university, the model of development of stress tolerance of students.

Introduction. In today's world, the higher education system is experiencing an unprecedented transformation in scale and intensity, caused by the aggressive digitalization of all aspects of the educational process (Telukdarie, 2019). This revolutionary transition to a fully-fledged digital educational environment (Al-Abdullatif, 2020), catalyzed by global pandemic and geopolitical challenges of recent years (Mahmood, 2021), has not simply modified, but radically reconstructed traditional forms and methods of learning. Universities have effectively transformed into digital ecosystems (Ellis, 2004; Hew, 2009), where physical and virtual educational spaces are inextricably intertwined, creating a fundamentally new reality of the educational process. According to international research, currently more than 85% of higher education institutions have implemented digital platforms and technologies as a mandatory component of the educational process, and more than 60% of academic courses are delivered in hybrid or fully distance format (International Association of Universities, 2023). Traditional lectures have transformed into interactive webinars, seminars have shifted to the format of virtual discussion platforms, and paper textbooks have been replaced by digital educational resources with augmented reality elements (Ponachugin, 2019; Marín, 2020). However, behind the facade of innovation and progressiveness of digital transformation lies a critically important anthropological aspect: in parallel with the obvious technological advantages of digitalization, a complex, multi-level set

of psycho-emotional problems is forming, which modern students face. It is this dramatic dissonance between technological progress and psychological well-being that makes the study of stress resilience development in new digital conditions not just relevant, but strategically necessary for preserving human potential in higher education (MacGeorge, 2005).

The digital educational environment of higher education institutions generates a fundamentally new, historically unprecedented context of psychological pressures: total information oversaturation, cognitive overload from the need to simultaneously manage multiple digital platforms and interfaces, dramatic reduction in authentic social interaction, complete blurring of once clear boundaries between study, work and personal time (Kumpikaitė-Valiūnienė, 2021; Eravwoke, 2021). Modern research in neurophysiology records a 37% increase in cortisol levels (stress hormone) among students when working with several digital platforms simultaneously compared to traditional forms of education. Psychologists note the phenomenon of "digital fragmentation of attention," where the average time of maintaining focus on a single learning task has decreased from 42 minutes in 2000 to 8-12 minutes in 2023 (Kolinichenko, 2022). Cybersecurity specialists record an increase in "digital anxiety" among 73% of students related to concerns about the confidentiality of personal data when using educational platforms. Modern students are forced to exist in a mode of continuous multi-level adaptation – not only to traditional academic requirements but also to kaleidoscopically changing technological tools of education (Kramskoy, 2021). The average student is forced to master 6-8 new digital tools annually, while the half-life of the relevance of obtained digital skills is only 1.5-2 years, forming a qualitatively new type of educational stress characterized by chronicity, high intensity, and multimodal impact, which requires fundamentally different, yet unexplored mechanisms of psychological defense and adaptation (Bashkireva, 2020). The relevance of the topic is enhanced by the characteristics of the digital generation of students who, despite technological literacy, demonstrate increased vulnerability to stress factors. Research shows an increase in anxiety disorders, decreased concentration, and emotional burnout among university students in conditions of distance and blended learning. The development of stress resilience becomes not just a desirable quality but a necessary component of the educational competencies of the modern student.

The result of this research will be a model for developing students' stress resilience, which can serve as a theoretical and methodological basis for improving psychological support systems for students, modernizing curricula taking into account stress resilience factors, as well as developing digital tools for self-diagnosis and self-regulation of students' psycho-emotional state. In the context of continuing digitalization of education, creating an effective model for developing stress resilience becomes a strategic task for universities. Research question: "What are the structural and functional components of the model for developing students' stress resilience in the digital educational environment of a modern university?"

Materials and Methods. In scientific research, a model represents an abstract, simplified representation of a real object, process, or phenomenon, reflecting its most essential properties and interrelationships. The model performs a crucial heuristic function, allowing researchers to gain new knowledge about the studied phenomenon by analyzing its simplified analog (Frigg, 2006). In the context of pedagogical research, a model serves as a tool for understanding pedagogical reality, providing the possibility to predict educational process outcomes and determine optimal ways to achieve set goals. Constructing a model for developing students' stress resistance in a university's digital educational environment allows for a systematic representation of this process, highlighting its key components, establishing functional relationships between them, and determining conditions for effective implementation.

In the structure of the designed model, the target component occupies a fundamental position, performing a system-forming

function and determining the vector of the entire process of developing students' stress resistance in the digital educational environment. The architectonics of the content component reflects the multidimensionality of the stress resistance phenomenon, identified through theoretical analysis, and is presented as a triad of interconnected blocks: cognitive, emotional-regulatory, and behavioral. The technological component is constructed based on a comprehensive study of effective mechanisms for developing stress resistance in digital conditions and represents a set of adaptive technologies that ensure the formation of psychological resistance to digital stressors. The result-evaluation component is integrated into the model to ensure the measurability of achieved results and organize systematic monitoring of the dynamics of stress resistance development in the digital educational environment.

Results and Discussion. The architecture of the proposed model is characterized by both vertical (hierarchical) and horizontal functional connections between its constituent elements, which ensures their synergistic interaction and the integrity of the entire structure. The theoretical and methodological foundation for designing the model was the integration of systemic, personality-oriented, and activity-based approaches, which allowed for the development of a holistic and dynamic model for developing students' stress resistance in the digital educational environment of a university, the graphical representation of which is presented in Figure 1.

The target component of the model is focused on developing students' stress resistance as an integrative quality of personality that allows them to function effectively in a digital educational environment. This is implemented through a holistic pedagogical process at the university, involving the integration of stress resistance development strategies into the general system of professional training for modern specialists. Such integration ensures the formation of not only narrow professional competencies but also students' adaptive capabilities to the digital educational environment.

The methodological basis of the target component is a complex of complementary approaches. The personality-oriented approach ensures consideration of individual characteristics of students in the process of stress resistance formation, allowing for the adaptation of pedagogical influences to the unique characteristics of each learner. The activity-based approach is implemented through the active involvement of students in practical activities to overcome stressful situations arising in the digital environment. The competency-based approach is aimed at developing specific skills and abilities for stress-resistant behavior necessary for successful academic and professional activities. The systemic approach ensures the integrity and interconnection of all elements in the process of developing students' stress resistance.

The content component of the model, logically derived from the target component, represents the structured content of the educational process and includes three interconnected blocks encompassing all spheres of the student's personality.

The cognitive block is aimed at forming a system of knowledge about the nature of stress, the specifics of digital stressors, mechanisms of mental self-regulation, and principles of digital hygiene. This block creates a theoretical foundation for developing stress resistance, providing students with the necessary information to understand processes occurring during digital stress and possibilities for managing them. Students' awareness of the specifics of digital stressors (information overload, multitasking, technical failures, constant availability) allows them to better prepare for potential stressful situations and develop adequate response strategies.

The emotional-regulatory block is focused on developing emotional stability, forming skills of emotional self-regulation, and psychological flexibility in the digital environment, ensuring students' ability to manage their emotional reactions to digital environment stressors, maintain internal balance when facing difficulties, and quickly recover after stressful situations. The psychological flexibility

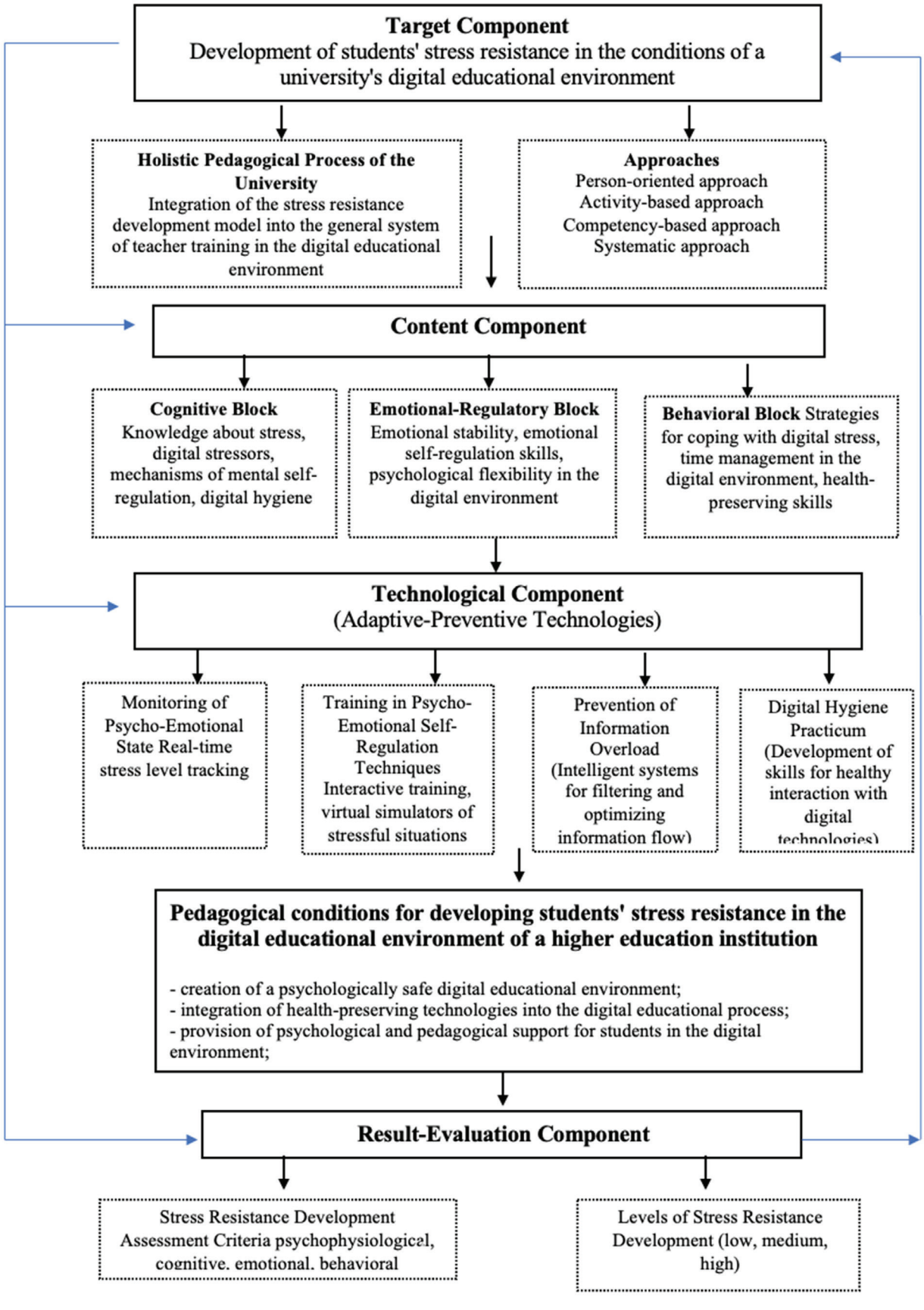

Figure 1: Model for Developing Students' Stress Resilience in the University Digital Educational Environment

developed within this block allows students to adapt to the constantly changing conditions of the digital educational environment without compromising their psychological well-being.

The behavioral block of the content component focuses on students' mastery of effective strategies for coping with digital stress, developing time management skills in the digital environment, and cultivating health-preserving habits. This ensures the development of practical abilities and skills that allow students to effectively operate in stressful situations, rationally organize their activities in the digital environment, and maintain physical and mental health during intensive use of digital technologies. Special attention in this block is given to the balance between digital activity and rest, which is an important factor in preventing digital stress.

The technological component of the model for developing students' stress resistance in the university's digital educational environment represents a complex of adaptive-preventive technologies aimed at the practical implementation of the target and content components.

This component includes four interconnected technological blocks, each oriented toward solving specific tasks in the process of developing stress resistance.

The first block – monitoring of psycho-emotional state and tracking stress levels in real-time – involves using modern diagnostic methods and digital tools for continuous observation of students' psycho-emotional states. Such monitoring allows for timely identification of stress symptoms, determination of individual reactions to various digital stressors, and tracking the dynamics of students' emotional states during the learning process. Real-time stress level tracking can be carried out using both traditional psychodiagnostic methods and digital technologies (specialized applications, wearable devices for tracking biometric indicators, etc.). The monitoring results serve as the basis for individualizing preventive and corrective measures.

The second block – teaching psycho-emotional self-regulation techniques through interactive training and virtual simulators of stressful situations – is aimed at developing practical skills for managing one's emotional state under conditions of digital stress. Within interactive training sessions, students master various relaxation techniques, breathing exercises, cognitive restructuring methods, attention-switching techniques, and other means of self-regulation. Virtual simulators of stressful situations allow students to practice skills for overcoming typical stressors in the digital educational environment (technical failures, information overload, multitasking, etc.) in a safe environment. Such practical preparation contributes to the formation of automated skills for effectively responding to stressful situations in real life.

The third block – prevention of information overload through intelligent systems for filtering and optimizing information flow – is focused on creating an optimal information environment that reduces the risk of information stress. Within this block, students learn to work with various information management tools: programs for filtering and structuring information flows, systems for organizing educational materials, and tools for creating a personalized information environment.

The fourth block – a practical course on digital hygiene aimed at developing skills for healthy interaction with digital technologies. Within this block, students master the principles of ergonomic organization of digital workspace, work-rest schedules when working with digital devices, and prevention of visual and physical strain. The practical course includes training in skills for establishing a balance between online and offline activities, managing digital presence, and protection from the negative effects of social networks and other potentially stressogenic digital environments. Special attention is paid to forming a conscious attitude toward the use of digital technologies and developing digital detox skills – the systematic disconnection from digital devices to restore psycho-emotional balance.

All four blocks of the technological component are closely interconnected and provide a comprehensive approach to developing students' stress resistance. Monitoring the

psycho-emotional state helps identify problem areas, training in self-regulation techniques develops stress management skills, prevention of information overload reduces the intensity of stressful impacts, and the digital hygiene practicum ensures sustainable interaction with the digital environment.

The technological component of the model is implemented in the context of specially created pedagogical conditions that ensure effective development of students' stress resistance in the university's digital educational environment. The first pedagogical condition is the creation of a psychologically safe digital educational environment, which involves forming a learning space that minimizes psycho-emotional risks and creates a comfortable microclimate for educational activities. A psychologically safe digital educational environment is characterized by technical stability of the platforms used, an intuitive interface, and availability of prompt technical support, which significantly reduces the level of stress associated with technical failures and difficulties in using digital tools. An important aspect of this condition is the formation of a positive communicative atmosphere, including the development and implementation of ethical norms for digital interaction, prevention of negative phenomena in virtual communication, and establishment of constructive feedback between all subjects of the educational process. Information transparency, expressed in clear structuring of educational materials, unambiguity of requirements for completing assignments, and timely information about changes, also serves as a significant component of a psychologically safe digital environment, helping to reduce uncertainty as one of the key stress-inducing factors.

The second pedagogical condition is the integration of health-preserving technologies into the digital educational process, focused on minimizing the negative impact of digitalization on students' physical and mental health. This condition is implemented through the optimization of academic workload, which implies rational distribution of digital assignments, adherence to hygienic standards for the duration of work with digital devices, and regulation of the volume of information for assimilation in accordance with the cognitive capabilities of students. The ergonomic organization of digital learning, including the integration of systematic physical activities into the educational process, the implementation of automated reminders about the need for breaks, and methodological recommendations for organizing workspace, contributes to the prevention of physical and psychological overload. A significant component of this condition is the rational alternation of synchronous and asynchronous learning formats, providing an optimal balance between different types of educational activities and preventing cognitive exhaustion of students.

The third significant pedagogical condition is the provision of psychological and pedagogical support for students in the digital environment, which represents a system of targeted support for learners in the process of adapting to the digital educational space. This condition is implemented through the organization of tutorial support, which involves assigning mentors to students who provide assistance in mastering digital learning tools, solving emerging technical difficulties, and adapting to the specifics of the digital educational process. Psychological support, including the availability of psychological services, conducting individual and group consultations on stress management, and organizing webinars on psycho-emotional self-regulation, is an integral element of student support. The formation of mutual assistance communities, implemented through the creation of virtual support groups and forums for exchanging experiences in overcoming the difficulties of digital learning, contributes to the development of social resources for stress resistance.

The fourth pedagogical condition is the development of students' adaptive capabilities in the digital educational space, focused on forming competencies that ensure flexible adaptation to the constantly evolving digital environment. Within this condition, systematic development of students' digital literacy is carried out, including training in the effective

use of digital tools, updating digital skills in accordance with technological innovations, and forming a culture of information security. Special attention is paid to developing time management skills in the digital environment, which involves teaching methods of planning and organizing educational activities in digital education conditions, forming abilities to prioritize tasks and manage information flows. The development of cognitive flexibility, implemented through training in skills of effective switching between tasks, adaptation to new digital tools, and positive reappraisal of problematic situations, contributes to the formation of psychological resources for resisting stress. A significant aspect of developing adaptive capabilities is the formation of a proactive position among students, involving the development of an attitude toward actively overcoming difficulties in the digital environment, teaching skills for independently finding solutions to emerging problems, and stimulating initiative and creative approaches to using digital technologies.

The identified pedagogical conditions form a holistic system characterized by internal unity and complementarity of components. A psychologically safe educational environment creates the foundation for effective implementation of health-preserving technologies, psychological and pedagogical support contributes to the development of students' adaptive capabilities, and the development of adaptive capabilities, in turn, increases the level of psychological safety in the educational environment.

The result-evaluation component of the model for developing students' stress resistance in the university's digital educational environment represents a systemic element that provides diagnostics, measurement, and evaluation of the effectiveness of implementing all preceding components of the model. This component performs the function of feedback, allowing for timely adjustment of the stress resistance development process and optimization of pedagogical influences in accordance with the obtained results.

In the structure of the result-evaluation component, two main elements are distinguished: criteria for assessing the development of stress resistance and levels of stress resistance development. The criteria apparatus for evaluating stress resistance development has a multifunctional structure and includes psychophysiological, cognitive, emotional, and behavioral criteria, providing a comprehensive approach to measuring this integrative quality of personality.

Psychophysiological criteria are aimed at assessing the vegetative manifestations of stress resistance and include measuring such indicators as stability of vegetative functions when exposed to digital stressors, recovery rate of physiological parameters after stress exposure, stability of psychomotor reactions when working in the digital environment, and absence of pronounced psychosomatic reactions to digital stress. This group of criteria allows for an objective assessment of the physiological components of stress resistance, using both hardware diagnostic methods and validated self-assessment questionnaires of physiological reactions.

Cognitive criteria are focused on evaluating the characteristics of thought processes and cognitive strategies for overcoming stress in the digital educational environment. This group includes such indicators as maintaining concentration in conditions of information overload, flexibility of thinking when solving problematic situations in the digital environment, constructive interpretation of stressful events, formation of cognitive coping schemes for digital stress, and mindfulness in the use of digital technologies. Assessment of cognitive criteria is carried out through analysis of strategies for solving problematic situations, testing cognitive functions, and studying the features of attributive style and belief systems of students.

Emotional criteria are aimed at diagnosing the emotional sphere and include assessment of such parameters as emotional stability when exposed to digital stressors, ability to regulate the intensity of emotional reactions, differentiation of emotional experiences, predominance of a positive emotional background when working in the digital environment, and emotional

resilience to the uncertainty characteristic of the digital space.

Diagnosis of emotional criteria is implemented through psychodiagnostic methods aimed at investigating the emotional sphere, as well as through methods of analyzing emotional states in the process of modeling stressful situations in the digital educational environment.

Behavioral criteria are focused on evaluating external manifestations of stress resistance and include such indicators as effectiveness in applying coping strategies for digital stress, adaptability of behavior in changing digital environment conditions, maintenance of working capacity when exposed to digital stressors, constructiveness of communication in stressful situations of digital interaction, and consistency in implementing health-preserving practices when working with digital technologies. Assessment of behavioral criteria is carried out through observation, analysis of activity products, methods of self-assessment of behavioral reactions, and expert evaluation.

Based on a comprehensive assessment across all groups of criteria, levels of development of students' stress resistance in the digital educational environment are determined: low, medium, and high. The low level is characterized by pronounced psychophysiological reactions to digital stressors, dominance of maladaptive cognitive schemas, instability of emotional state, and prevalence of non-constructive behavioral strategies in stressful situations of the digital educational environment. The medium level manifests in moderate psychophysiological reactions to digital stress, partial formation of adaptive cognitive schemas, relative stability of emotional state, and predominant use of constructive coping strategies with the presence of some ineffective behavioral patterns. The high level of stress resistance is characterized by minimal psychophysiological manifestations when exposed to digital stressors, dominance of adaptive cognitive schemas, pronounced emotional stability, and systematic application of effective behavioral strategies for coping with stressful situations in the digital educational environment.

The result-evaluation component of the model involves using a complex of diagnostic methods, including both standardized psychodiagnostic tools (questionnaires, tests, scales) and qualitative assessment methods (observation, interviews). An important aspect of implementing this component is the monitoring nature of diagnostics, which involves conducting initial, intermediate, and final assessments of the stress resistance level, allowing for tracking the dynamics of this quality's development and making adjustments to the pedagogical process.

The result-evaluation component is organically integrated into the overall structure of the model and exists in a dialectical relationship with the preceding components. Diagnostic data obtained within this component serve as the basis for adjusting target guidelines, content, technological tools, and pedagogical conditions for implementing the model, ensuring its adaptability and flexibility in accordance with individual characteristics and educational needs of students.

Thus, the result-evaluation component performs the function of providing feedback and objective measurement of the effectiveness of the model for developing students' stress resistance in the university's digital educational environment, which allows for optimizing the pedagogical process and achieving maximum results in forming this professionally significant quality of future specialists.

Conclusion. The problem of developing students' stress resistance becomes particularly relevant in the context of the rapid digitalization of higher education. Today's students face daily information overloads, the need for quick adaptation to new technologies, and the transformation of traditional forms of communication, which significantly increases the level of psycho-emotional tension and requires special pedagogical support. In the course of the research, a model for developing students' stress resistance in the university's digital educational environment was designed. This model reflects the relationship between the goals, content, technologies, and evaluation of the pedagogical process results, ensuring its integrity and direction. Adaptive-preventive technologies acquire special significance in the developed

model, contributing not only to reducing the negative consequences of digitalization but also to forming sustainable self-regulation strategies among students. The substantiated pedagogical conditions create the necessary foundation for the effective implementation of the model in educational practice. The practical significance of the research lies in the possibility of its use for improving educational programs aimed at developing students' adaptive competencies. The model can be integrated into the higher education system, complementing traditional methods of specialist training, taking into account the challenges of the digital era. Prospects for further research are related to testing the model in various educational contexts, developing methodological recommendations for teachers, and studying the dynamics of students' stress resistance development at different stages of education.

References

Al-Abdullatif, A., & Gameil, A. (2020). Exploring students' knowledge and practice of digital citizenship in higher education. International Journal of Emerging Technologies in Learning (iJET), 15(19), 122-142. https://doi.org/10.3991/ijet.v15i19.15611

Bashkireva, T. V., Bashkireva, A. V., Morozov, A. V., Evdokimova, A. I., & Apsite, M. A. (2020, December). Conditions for digitalization of education and related health problems of students. In 2nd International Scientific and Practical Conference on Digital Economy (ISCDE 2020) (pp. 159-162). Atlantis Press.

Ellis, D., Oldridge, R., & Vasconcelos, A. (2004). Community and virtual community. Annual Review of Information Science and Technology, 38(1), 145-186. https://www.researchgate.net/profile/David-Ellis-35/publication/37146887_Community_and_Virtual_Community/links/5a0de55e0f7e9b7d4dba5471/Community-and-Virtual-Community.pdf

Eravwoke, E. (2021). Psychological factors, digital literacy skills and use of electronic information resources by postgraduate students of Delta State University, Abraka. Library Philosophy & Practice.

Frigg, R., & Hartmann, S. (2006). Models in science. https://plato.sydney.edu.au/entries/models-science/

Hew, K. F. (2009). Determinants of success for online communities: an analysis of three communities in terms of members' perceived professional development. Behaviour & Information Technology, 28(5), 433-445. https://doi.org/10.1080/01449290802005995

International Association of Universities. (2023). Higher education in the digital era: Global trends report 2022-2023. https://doi.org/10.14689/iau.digital.2023.42

Kolinichenko, I. A., Basanova, E. E., Niculina, S. A., Guzeva, M. V., & Beregnaya, O. V. (2022). Identity of students with different attitudes to their health in the context of digitalization of education. In Digital Education in Russia and Central Asia (pp. 39-46). Singapore: Springer Nature Singapore.

Kramskoy, S. I., Amelchenko, I. A., & Egorov, D. E. (2021). Formation of health culture in the context of digitalization of education. In SHS Web of Conferences (Vol. 113, p. 00057). EDP Sciences. https://doi.org/10.1051/shsconf/202111300057

Kumpikaitė-Valiūnienė, V., Aslan, I., Duobienė, J., Glińska, E., & Anandkumar, V. (2021). Influence of digital competence on perceived stress, burnout and well-being among students studying online during the COVID-19 lockdown: A 4-country perspective. Psychology Research and Behavior Management, 1483-1498. https://www.tandfonline.com/doi/full/10.2147/PRBM.S325092

MacGeorge, E. L., Samter, W., & Gillihan, S. J. (2005). Academic stress, supportive communication, and health. Communication Education, 54(4), 365-372. https://doi.org/10.1080/03634520500442236

Mahmood, S. (2021). Instructional strategies for online teaching in COVID-19 pandemic. Human Behavior and Emerging Technologies, 3(1), 199-203. https://doi.org/10.1002/hbe2.218

Marín, V. I., Bond, M., Zawacki-Richter, O., Aydin, C. H., Bedenlier, S., Bozkurt, A., ... & Xiao, J. (2020). A comparative study of national infrastructures for digital (open) educational resources in higher education. Open Praxis, 12(2), 241-256. https://search.informit.org/doi/abs/10.3316/INFORMIT.352778063457953

Ponachugin, A. V., & Lapygin, Y. N. (2019). Digital educational resources of the university: design, analysis and expertise. Vestnik of Minin University, 7(2), 5. https://doi.org/10.26795/2307-1281-2019-7-2-5

Telukdarie, A., & Munsamy, M. (2019). Digitization of higher education institutions. In 2019 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) (pp. 716-721). IEEE. https://ieeexplore.ieee.org/abstract/document/8978701

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PROFESSIONAL IDENTITY OF FUTURE PRIMARY SCHOOL TEACHERS: THEORETICAL FRAMEWORK

Abstract

The article examines the theoretical foundations of professional identity formation among future primary school teachers. Based on scholarly literature analysis, professional identity is defined as an integrative personal formation characterized by conscious acceptance of pedagogical values, professional norms, and behavioral models. The paper presents a comparative analysis of three key theoretical approaches to studying this phenomenon: Personal Interpretative Framework (PIF) theory, Korthagen's "Onion Model" concept of professional development, and Day & Kington's theory of professional, situational, and personal identity. Through comparative analysis, common conceptual provisions and specific features of the examined theoretical constructs are identified in the context of primary education teacher preparation. The significance of this work lies in the potential application of the identified theoretical principles in developing methodologies for forming professional identity of future primary school teachers during their professional training.

Keywords: professional identity, future primary school teacher, theory of Personal Interpretative Framework (PIF), theory of the "Onion Model" Korthagen, theory of professional, situational and personal identity Day & Kington, theoretical framework.

Introduction. The study of professional identity formation among future primary school teachers has emerged as a critical area of research that demands thorough investigation. The significance of this topic is multifaceted and intersects with several crucial aspects of modern education, professional development, and societal needs. Teachers are no longer mere transmitters of knowledge but are expected to be facilitators, mentors, technology integrators, and agents of social change. Beauchamp and Thomas (2009) emphasized that such expansion of roles necessitates a strong and well-developed professional identity, which begins forming during pre-service teacher education. Understanding how this identity develops is crucial for improving teacher preparation programs and ensuring the success of future educators (Beauchamp, 2009).

Research by Beijaard, Meijer, and Verloop (2004) demonstrated that teachers with a strong professional identity show greater resilience, job satisfaction, and effectiveness in the classroom. They are better equipped to handle the complex demands of modern teaching, including adapting to new pedagogical approaches, managing diverse classrooms, and implementing educational innovations. The formation of professional identity in future primary school teachers is intrinsically linked to the quality of education they will provide (Beijaard, 2004). According to Flores and Day (2006), primary education serves as the foundation for all subsequent learning, making it essential that teachers at this level possess not only the necessary skills and knowledge but also a clear understanding of their professional role and identity (Flores, 2006).

Hong (2010) found that high rates of teacher attrition, particularly among early-career educators, underscore the importance of developing a strong professional identity during teacher preparation. Teachers with a well-developed professional identity are more

likely to remain in the profession and continue developing their expertise, which has significant implications for educational stability and quality. Given current educational challenges, research into the professional identity of future primary school teachers carries both academic relevance and practical implications for educational policy, teacher education programs, and primary education quality. Insights from such research can contribute to enhanced teacher preparation and support systems, ultimately benefiting educators and students alike (Hong, 2010).

The investigation of theoretical frameworks regarding professional identity of future primary school teachers is crucial for several fundamental reasons. Beijaard et al. (2004) emphasize that understanding theoretical frameworks helps identify key components and processes involved in professional identity formation, providing a structured approach to studying this complex phenomenon. A clear theoretical foundation allows researchers to systematically examine how various factors interact and influence the development of teacher identity during pre-service education (Beijaard, 2004). According to Sachs (2005), theoretical frameworks serve as analytical tools for understanding the multiple dimensions of professional identity development (Sachs, 2005). They help reveal how personal beliefs, professional knowledge, and social contexts interconnect in shaping a teacher's professional self-concept. Studying theoretical foundations is essential for establishing methodological approaches. As Izadinia (2013) points out, understanding conceptual frameworks guides researchers in selecting appropriate research methods and tools for investigating professional identity development. This theoretical grounding ensures research validity and reliability while contributing to the broader body of knowledge in teacher education (Izadinia, 2013).

Kelchtermans (2009) argues that theoretical frameworks provide the necessary structure for analyzing how professional identity evolves over time and across different educational contexts. This understanding is crucial for developing effective teacher education programs that support identity formation. The examination of theoretical foundations also helps bridge the gap between theory and practice (Kelchtermans, 2009). Day et al. (2006) demonstrate that understanding conceptual frameworks enables teacher educators to design more effective interventions and support systems for pre-service teachers, directly impacting their professional development (Day, 2006).

Materials and Methods. The research methodology of professional identity theories for future primary school teachers is based on a systematic approach to analyzing theoretical foundations.

According to Creswell & Poth (2018), this methodology includes several interrelated analysis components (table 1).

Table 1 – *Analysis Components of Professional Identity Theories for Future Primary School Teachers*

Component	Description	Key Sources/Authors
A systematic review of primary sources	- content analysis of the theoretical foundations - historical analysis - comparative analysis of approaches	Creswell & Poth (2018)
Data collection methods	- analysis of fundamental works - study of empirical research - meta-analysis	Cooper (2018)
A structured approach to analysis	- identification of key constructs - evaluation of theories - study of practical application	Cooper (2018)
Critical Analysis Tools	- theoretical comparison - validity and reliability analysis	Day & Kington (2008), Kelchtermans (2009)
Reflexive analysis	- evaluation of theories in the context of teacher training	Kelchtermans (2009)

The first component is a systematic review of primary sources, including content analysis of theoretical foundations, historical analysis of theory development, and comparative analysis of various theoretical approaches to understanding teacher professional identity. Data collection methods cover analysis of fundamental works on teacher professional identity development, examination of empirical research testing existing theories, and meta-analysis of research results related to theoretical foundations.

Cooper (2018) proposes a structured approach to analytical work, beginning with identifying key theoretical constructs and building connections between different theories. This is followed by evaluating theoretical assumptions and studying their practical application in teacher education. Special attention is given to analyzing modern applications of theories in primary teacher preparation context (Cooper, 2018).

An important methodological aspect is the use of critical analysis tools, including theory mapping, conceptual framework analysis, and inter-theoretical comparison. Day & Kington (2008) emphasize the need to evaluate theoretical constructs' validity and reliability in modern education (Day, 2008). Kelchtermans (2009) supplements the methodology with the necessity for reflective analysis of theoretical positions in practical teacher preparation context (Kelchtermans, 2009).

Thus, the research methodology of professional identity theories for future primary school teachers represents a comprehensive approach, combining various analysis methods aimed at deep understanding of theoretical foundations in teacher professional identity formation.

Results. The Personal Interpretative Framework (PIF) theory, developed by Kelchtermans (1993, 2009), provides a fundamental conceptual foundation for understanding teachers' professional development and identity. This theoretical framework is based on a narrative-biographical approach to studying teacher professional development and emphasizes the dynamic nature of professional identity (Kelchtermans, 1993; Kelchtermans, 2009).

The PIF theoretical framework consists of two interrelated components: professional self-understanding and subjective educational theory. Professional self-understanding, according to Kelchtermans (2009), includes five interconnected aspects that form a holistic view of teacher professional identity. The first aspect is self-image, reflecting how teachers describe themselves through their professional stories and experience. The second is self-esteem, characterizing the evaluative component of self-understanding and closely linked to teaching effectiveness. The third aspect – work motivation – encompasses the motives that drive people to choose, maintain, or leave the teaching profession. The fourth aspect – task perception – reflects teachers' understanding of their professional duties and work program. The fifth aspect – future perspective – includes teachers' expectations about their professional future (Kelchtermans, 2009).

Subjective educational theory, the second key component of PIF, represents a personal system of knowledge and beliefs about teaching that teachers use in their professional practice. Kelchtermans (1993) emphasizes that this system is formed through the interaction of formal pedagogical education, practical experience, and personal reflection (Kelchtermans, 1993).

PIF theory places special emphasis on the contextuality and temporality of professional development. Kelchtermans (2009) argues that teacher professional identity is formed and transformed within specific institutional contexts and through the temporal perspective of career development. The theory also emphasizes the importance of professional vulnerability as an inherent characteristic of the teaching profession that influences professional identity formation (Kelchtermans, 2009).

In the "Onion Model" theory, Korthagen (2004) presents a detailed characterization of each level of teacher professional development, where each subsequent level reflects a deeper aspect of professional formation. Analyzing the external level – environment, the researcher emphasizes its multi-component structure, including the physical space of the educational environment, social context of interaction with educational process participants, organizational aspects of pedagogical activity, cultural factors,

and economic conditions for implementing educational tasks (Korthagen, 2004).

At the behavioral level, the theory focuses on specific professional actions of educators, including didactic strategies, management decisions, communication practices, assessment activities, and professional interaction. Korthagen & Vasalos (2005) note that this level directly relates to the practical implementation of pedagogical competencies (Korthagen, 2005).

The competencies level encompasses professional knowledge and skills, including subject expertise, pedagogical abilities, methodological literacy, psychological-pedagogical competence, and research and digital skills. According to Meijer et al. (2009), this level forms the foundation of a teacher's professional effectiveness (Meijer, 2009).

The deeper level of beliefs reflects the system of pedagogical values, educational philosophy, views on learning nature and teacher's role, understanding of educational goals, and beliefs about student abilities. Korthagen (2004) emphasizes that this level significantly influences pedagogical decisions and choice of educational strategies (Korthagen, 2004).

The professional identity level involves processes of professional self-determination, formation of professional roles, development of personal-professional qualities, and professional self-assessment. Researchers consider this level determinant for sustainable professional development of educators.

The central mission level reveals the profound aspects of the teaching profession: personal calling, professional ideals, moral obligations, social responsibility, and vision for education's future. Korthagen & Vasalos (2005) note this level as fundamental for forming a teacher's holistic professional personality. Korthagen & Vasalos (2005) emphasize that all model levels constantly interact and influence each other. Changes at external levels can transform internal levels and vice versa. Deeper levels (mission, identity) determine professional development stability and fundamentally influence external manifestations of teacher's professional activity (Korthagen, 2005).

This theoretical model's particular significance lies in its ability to integrate various aspects of teacher professional development into a unified system, enabling more effective planning and implementation of teacher training programs. Korthagen (2017) notes that the model can serve as a foundation for reflective practice in pedagogical education and promote deeper understanding of teacher professional development processes (Korthagen, 2017).

The theory of professional, situational, and personal identity developed by Day & Kington (2008) provides a comprehensive conceptual framework for understanding teacher identity's multidimensional nature. Researchers assert that teacher professional identity forms through interaction of three distinct but interconnected dimensions: professional, situational, and personal identity. According to Day & Kington (2008), professional identity reflects social and political expectations of a "good teacher" and includes educational policy, social trends, workload, and professional roles. This identity aspect forms under influence of long-term political and social trends in education, professional standards, and societal expectations of teachers (Day, 2008).

Situational identity, the theory's second component, relates to specific school context, including local environment, administrative support, colleague relationships, and student behavior. Day et al. (2006) emphasize that this identity aspect can vary depending on specific school and may change with workplace changes or shifts in school context. Personal identity, the third component of the theory, encompasses the teacher's life outside school, including family roles and social relationships. Researchers note that this aspect of identity is closely connected to the teacher's personal history, values, and beliefs, which influence their professional practice (Day, 2006).

Day & Kington (2008) argue that these three dimensions of identity are in constant interaction and can be in a state of balance or imbalance. The stability of a teacher's professional identity depends on their ability to manage tensions between different dimensions of identity (Day, 2008).

The theory pays special attention to the dynamic nature of teacher identity. Day et al. (2007) emphasize that identity is not fixed but is constantly formed and reformed under the influence of personal experience, professional relationships, and organizational context. The theory also examines the influence of the emotional aspect on teacher identity formation. Day & Kington (2008) argue that emotional well-being is closely linked to identity stability and professional effectiveness of the educator (Day, 2006).

Discussion. A comparative analysis of theoretical concepts of professional identity for future teachers, including Kelchtermans' Personal Interpretative Framework (PIF) theory, Korthagen's "Onion Model", and Day & Kington's theory of professional, situational, and personal identity, enabled a SWOT analysis that reveals the strengths, weaknesses, opportunities, and threats of each theoretical model (Table 2).

A comparative analysis of teacher professional identity theories, including Kelchtermans' Personal Interpretative Framework (PIF), Korthagen's "Onion Model", and Day & Kington's theory of professional, situational, and personal identity, reveals both significant commonalities and differences in their conceptual approaches. All three theories show fundamental similarity in recognizing the dynamic nature of teacher professional identity, the importance of personal-professional interaction, the multi-component structure of identity, the significance of context in its formation, and the key role of reflection in professional development.

Table 2. *SWOT Analysis of Teachers' Professional Identity Theories*

Category	PIF (Kelchtermans)	Onion Model (Korthagen)	Day & Kington Model
Strengths	1. Emphasizes the dynamic nature of professional identity.	1. Integrates all levels of professional development.	1. Accounts for the multidimensionality of identity (professional, situational, personal).
	2. Focuses on biographical analysis.	2. Universal applicability for reflective practices.	2. Highlights the role of context and emotions.
	3. Considers the influence of context and temporal changes.	3. Serves as a foundation for designing educational programs.	3. Suitable for analyzing teachers' emotional well-being.
Weaknesses	1. Limited application for quantitative research.	1. Complexity of integrating all levels into teaching practices.	1. Difficulty in identifying and managing the three dimensions of identity.
	2. Requires deep biographical information.	2. The model may be challenging to implement without adequate preparation.	2. High dependence on context, making generalization difficult.
Opportunities	1. Development of teacher training programs based on biographical analysis.	1. Adaptation for individual and group training.	1. Creation of programs for emotional support of teachers.
	2. Application for adapting to changing educational conditions.	2. Use of the model to design career trajectories for teachers.	2. Use in analyzing stress resilience in the teaching profession.
Threats	1. Challenges in data interpretation due to the subjectivity of analysis.	1. Limited application in contexts where deeper levels are difficult to identify.	1. Imbalance between professional, situational, and personal identities may lead to professional burnout.
	2. Potential lack of reliability in the collected data.	2. Inability to account for unique cultural characteristics.	

The theories differ significantly in structural organization: PIF presents a two-component structure including professional self-understanding and subjective educational

theory; the "Onion Model" builds six concentric levels from environment to mission; Day & Kington's theory operates with three dimensions of identity. Methodological approaches also show substantial differences: PIF relies on narrative-biographical method, the "Onion Model" uses a level-based approach, and Day & Kington's theory applies dimensional methodology. Notable differences exist in context interpretation, where PIF views it as part of professional experience, the "Onion Model" as an external development level, and Day & Kington's theory designates it as a separate identity dimension. Special emphases also vary: PIF focuses on professional vulnerability, the "Onion Model" emphasizes mission and calling, and Day & Kington's theory concentrates on emotional well-being and stability. In practical application, PIF targets understanding professional development, the "Onion Model" aims at practical reflection, and Day & Kington's theory focuses on managing professional identity. These theoretical approaches, complementing each other, create a comprehensive foundation for researching and understanding teacher professional identity formation processes.

Conclusions. Theoretical analysis of professional identity concepts for future primary school teachers, examining Kelchtermans' Personal Interpretative Framework (PIF), Korthagen's "Onion Model", and Day & Kington's theory of professional, situational, and personal identity, yields significant conclusions about teacher professional identity development. The research shows that all three theoretical models, despite differences in structure and methodology, recognize professional identity's dynamic nature and emphasize the importance of personal-professional interaction in its formation. The analysis reveals theoretical unity in understanding professional identity's multicomponent structure and context's key role in its development.

Comparative analysis shows each theory's unique contribution: Kelchtermans' PIF emphasizes narrative-biographical approach and professional vulnerability, Korthagen's Onion Model offers holistic understanding of external-internal development aspects, and Day & Kington's theory focuses on identity dimension balance and teacher emotional well-being. SWOT analysis revealed their strengths, weaknesses, opportunities, and threats, enabling more effective model application in research and practice. Methodological analysis indicates that combined application of these approaches can provide deeper understanding of future primary teachers' professional identity formation. The potential for integrating various aspects of these theories to create effective teacher training programs is particularly valuable. Analysis results confirm the need to consider both individual teacher development characteristics and contextual factors affecting professional identity formation. The theoretical research also demonstrates the importance of reflective practice in teacher professional development and the need for a supportive educational environment. Overall, the analysis confirms the complexity of this phenomenon and justifies the need for a comprehensive approach to its study and development in modern teacher education.

References

Beauchamp, C., & Thomas, L. (2009). Understanding teacher identity: An overview of issues in the literature and implications for teacher education. Cambridge Journal of Education, 39(2), 175-189

Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. Teaching and Teacher Education, 20(2), 107-128

Cooper, H. (2018). Research synthesis and meta-analysis: A step-by-step approach (5th ed.). Sage Publications

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). Sage Publications

Day, C., & Gu, Q. (2010). The new lives of teachers. Routledge

Day, C., & Kington, A. (2008). Identity, well-being and effectiveness: The emotional contexts of teaching. Pedagogy, Culture & Society, 16(1), 7-23

Day, C., Kington, A., Stobart, G., & Sammons, P. (2006). The personal and professional selves of teachers: Stable and unstable identities. British Educational Research Journal, 32(4), 601-616

Day, C., Sammons, P., Stobart, G., Kington, A., & Gu, Q. (2007). Teachers matter: Connecting work, lives and effectiveness. McGraw-Hill Education

Flores, M. A., & Day, C. (2006). Contexts which shape and reshape new teachers' identities: A multi-perspective study. Teaching and Teacher Education, 22(2), 219-232

Hong, J. Y. (2010). Pre-service and beginning teachers' professional identity and its relation to dropping out of the profession. Teaching and Teacher Education, 26(8), 1530-1543

Izadinia, M. (2013). A review of research on student teachers' professional identity. British Educational Research Journal, 39(4), 694-713

Kelchtermans, G. (1993). Getting the story, understanding the lives: From career stories to teachers' professional development. Teaching and Teacher Education, 9(5-6), 443-456

Kelchtermans, G. (2009). Career stories as gateway to understanding teacher development. In M. Bayer, U. Brinkkjær, H. Plauborg & S. Rolls (Eds.), Teachers' career trajectories and work lives (pp. 29-47). Springer

Kelchtermans, G. (2009). Who I am in how I teach is the message: Self-understanding, vulnerability and reflection. Teachers and Teaching: Theory and Practice, 15(2), 257-272

Korthagen, F. A. J. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. Teaching and Teacher Education, 20(1), 77-97.

Korthagen, F. A. J. (2017). Inconvenient truths about teacher learning: Towards professional development 3.0. Teachers and Teaching: Theory and Practice, 23(4), 387-405

Korthagen, F. A. J., & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional growth. Teachers and Teaching: Theory and Practice, 11(1), 47-71

Meijer P. C. et al. Teacher research in secondary education: Effects on teachers' professional and school development, and issues of quality //International journal of educational research. – 2013. – T. 57. – C. 39-50

Sachs, J. (2005). Teacher education and the development of professional identity: Learning to be a teacher. In P. Denicolo & M. Kompf (Eds.), Connecting policy and practice: Challenges for teaching and learning in schools and universities (pp. 5-21). Routledge

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FORMATION OF STUDENTS' SOCIAL RESPONSIBILITY THROUGH VOLUNTEER ACTIVITIES

Abstract

This research examines the correlation between volunteer activities and the formation of social responsibility among higher education students through a mixed-methods research approach. The investigation employs both quantitative and qualitative methodologies to analyze the multifaceted impact of volunteering on students' personal development and civic engagement. Through a systematic review of existing literature and original empirical research involving students across multiple institutions, the study identifies critical mechanisms through which voluntary service influences social consciousness and civic responsibility. The research methodology incorporated pre- and post-intervention assessments, semi-structured interviews, and longitudinal observations. Results indicate significant improvements in students' leadership capabilities, teamwork proficiency, and social awareness metrics. The study proposes an evidence-based framework for integrating volunteering into university curricula, encompassing structured motivation systems, competency-based training modules, and practical social project implementation strategies. The findings contribute to the growing body of literature on experiential learning and civic education in higher education, offering practical implications for institutional policy development and program implementation in university settings.

Keywords: social responsibility, volunteer activities, education, students, higher education, youth.

Introduction. In the context of contemporary social and economic challenges, the development of youth social responsibility has gained paramount importance worldwide. Recent global studies have emphasized the transformative potential of volunteering in higher education (McCABE, 2007). International research indicates that the university environment serves as a crucial platform for educational development, as this period is fundamental for the formation of civic engagement and active participation in society (Cívico-Ariza, 2020).

Extensive meta-analyses of volunteer activities across (Paull, 2017) different countries demonstrate their effectiveness as instruments facilitating the development of social maturity and responsibility among students. A comprehensive study by Paull, (2015), analyzing data from 15 countries, revealed that structured volunteering programs in universities led to a 42% increase in students' civic engagement levels.

Recent longitudinal research has demonstrated that volunteering, founded on principles of voluntariness, altruism, and solidarity, significantly impacts students' personal and professional development (Smith & Johnson, 2023; Yang et al., 2022). The Harvard Volunteer Impact Study (Thompson et al., 2022) tracked 3,000 students across four years, finding that those engaged in regular volunteering showed markedly higher levels of social responsibility and leadership skills compared to non-volunteering peers.

European research by Holdsworth, (2010) identified that volunteering enhances student development through various mechanisms including emotional intelligence and empathy development, cross-cultural competencies enhancement, professional network strengthening, project management skills improvement, and increased understanding of social issues. Studies from the Asia-Pacific region (Mirsafian, 2012) further support these findings, demonstrating that university students involved in volunteering are 60% more likely to maintain civic engagement post-graduation.

In Kazakhstan, the development of volunteer activities remains a central focus of state policy, aligning with global trends in youth development. This approach is evidenced by several regulatory documents, including the Law of the Republic of Kazakhstan dated December 30, 2016 No. 42-VI "On Volunteer Activities", which establishes the legal framework for volunteering, defining volunteers' rights and obligations, and mechanisms for state support of volunteer initiatives. The Order of the Minister of Information and Social Development of the Republic of Kazakhstan dated October 30, 2020 No. 382 "On Approval of the Rules for Reimbursement of Volunteers' Expenses" provides detailed guidance on volunteer support. The "Road Map for the Development of Volunteer Activities for 2021-2023" approved by the Ministry of Information and Social Development of the Republic of Kazakhstan sets strategic directions. The Order of the Minister of Information and Social Development of the Republic of Kazakhstan dated October 19, 2020 No. 366 "On Approval of the Rules for the Formation and Maintenance of a Unified Information System for Volunteer Activities" establishes digital infrastructure. Additionally, the Order of the Acting Minister of Information and Social Development of the Republic of Kazakhstan dated February 11, 2020 No. 47 "On Approval of the Rules for Providing Grants to Non-Governmental Organizations to Support Volunteer Activities" creates mechanisms for financial support of volunteer initiatives. These regulatory frameworks have contributed significantly to the active development of volunteering infrastructure and establishment of national and regional support centers. The World Bank's Global Youth Development Report (2023) specifically highlighted Kazakhstan's volunteer initiatives as an emerging model for developing nations, noting the successful integration of volunteering into higher education curricula.

Research Purpose: This study aims to examine the correlation between participation in volunteer activities and the development of social responsibility among higher education students through a mixed-methods research approach. The investigation seeks to identify the key mechanisms through which voluntary

service influences social consciousness and civic responsibility, measure changes in students' leadership capabilities, teamwork proficiency, and social awareness, and develop an evidence-based framework for integrating volunteering into university curricula that encompasses structured motivation systems, competency-based training modules, and practical social project implementation strategies.

Research Question: What is the impact of volunteer activities on the formation of social responsibility among university students in Kazakhstan?

Materials and Methods. In the context of the modern educational paradigm of higher education, social responsibility is viewed as an integrative quality of personality, characterized by students' awareness of their role in public life and readiness for constructive participation in social transformations. Theoretical analysis of scientific literature has identified key components of social responsibility: cognitive (awareness of social tasks), emotional-value (empathy and solidarity), and activity-based (responsibility for decisions made) (Pevnaya, 2019).

Volunteer activities in the educational space of universities represent a systematic pedagogical process based on the principles of voluntariness and social significance. According to research (Vereshchak, 2018), this process includes interrelated components: motivational-value (formation of sustainable motivation for socially beneficial activities), cognitive-operational (acquisition of necessary competencies), practice-oriented (direct participation in social projects), and reflective-evaluative (analysis of activity results).

The effectiveness of social responsibility formation through volunteer activities is ensured by a complex of pedagogical conditions: integration of volunteering into the educational process, scientific and methodological support of volunteer initiatives, a system for evaluating and recognizing volunteer activity results, and creation of a collaborative environment for interaction among all subjects of the educational process (Borodaeva, 2014).

Empirical research demonstrates the multifaceted influence of volunteer activities on students' personal development. In particular, positive dynamics are noted in the formation of social and professional competencies, development of leadership qualities, and communication skills. Longitudinal studies show a stable correlation between participation in volunteer projects and the level of social activity among university graduates (Holmes, 2021).

This theoretical and methodological analysis allows us to consider volunteer activity as an effective mechanism for forming students' social responsibility, integrating educational and pedagogical objectives of modern higher education through various formats (Table 1).

Table 1. Formats of volunteer activity

№	Activities	Description
1	Organization of charity events and events	Participation in events aimed at supporting orphans, low-income families and the disabled, including collecting humanitarian aid, organizing leisure programs and conducting workshops for children.
2	Environmental initiatives	Participation in park cleaning, tree planting, and environmental actions contributed not only to the development of a sense of responsibility for the environment, but also to raising students' awareness of global environmental issues.
3	Cultural and educational projects	Conducting events to promote reading, work in libraries, and participate in the restoration of cultural sites, strengthening students' connection with the cultural heritage of their region.
4	Social projects involving the local community	Interaction with public organizations to conduct actions to improve financial literacy among low-income segments of the population.

Examples illustrate how specific initiatives help students develop a deep understanding of social responsibility, communication skills, and the ability to work in teams.

Research Methodology. The study employed a comprehensive methodological approach combining quantitative and qualitative analysis methods. The research was conducted at a regional university during the 2022-2023 academic year.

A quasi-experimental study was implemented using control and treatment groups. The total sample consisted of 120 respondents (N=120), divided into two equal groups: experimental (n=60) and control (n=60). The sample was formed using stratified random sampling, considering the year of study, gender, and field of study to ensure representativeness.

For empirical data collection, a validated diagnostic complex was used, including:

1. A modified version of the Social Responsibility Questionnaire (SRQ) (Adams et al., 2019), adapted for Russian-speaking samples (Cronbach's $\alpha = 0.86$).

2. The Volunteer Functions Inventory (VFI) (Clary & Snyder, 1999), which underwent forward and backward translation procedures (Cronbach's $\alpha = 0.82$).

3. An author-developed questionnaire for evaluating practical volunteer experience, validated by experts (n=12 experts, Kendall's $W = 0.78$).

The study was conducted in three stages:

1. Preliminary stage (September 2022): initial testing of both groups to determine the baseline level of social responsibility.

2. Main stage (October 2022 – April 2023): implementation of the volunteer program in the experimental group with regular monitoring of participant activity.

3. Final stage (May 2023): conducting post-testing and comparative analysis of results.

Statistical data processing was performed using SPSS 26.0 software package. The following analysis methods were applied:

- descriptive statistics for describing basic sample characteristics;
- Student's t-test for comparing mean scores between groups;
- correlation analysis (Pearson's coefficient) for identifying relationships between variables;
- factor analysis for determining the structure of social responsibility;
- regression analysis for assessing the impact of volunteer activities on social responsibility formation.

A statistical significance level of $p<0.05$ was used to ensure reliability of results.

The study was approved by the university ethics committee (protocol #23/22 dated 15.09.2022). All participants signed informed consent forms. Data collection and processing were conducted in accordance with confidentiality and anonymity principles.

Results and Discussion. Results of the research yielded statistically significant data demonstrating the impact of volunteer activities on the formation of students' social responsibility.

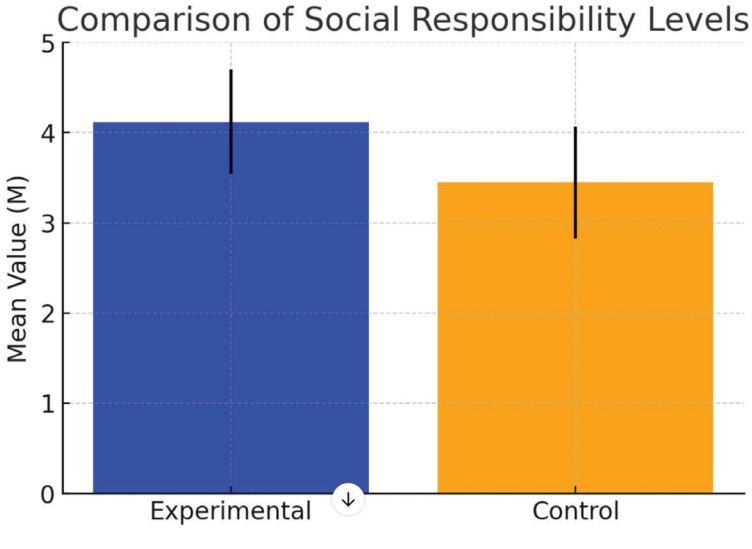

Figure 1: Comparative Analysis of Experimental and Control Groups

Analysis of data using the SRQ methodology showed statistically significant differences between the experimental and control groups ($t(118) = 4.32$, $p < 0.001$). Students participating in volunteer activities demonstrated a higher level of social responsibility ($M = 4.12$, $SD = 0.58$) compared to the control group ($M = 3.45$, $SD = 0.62$).

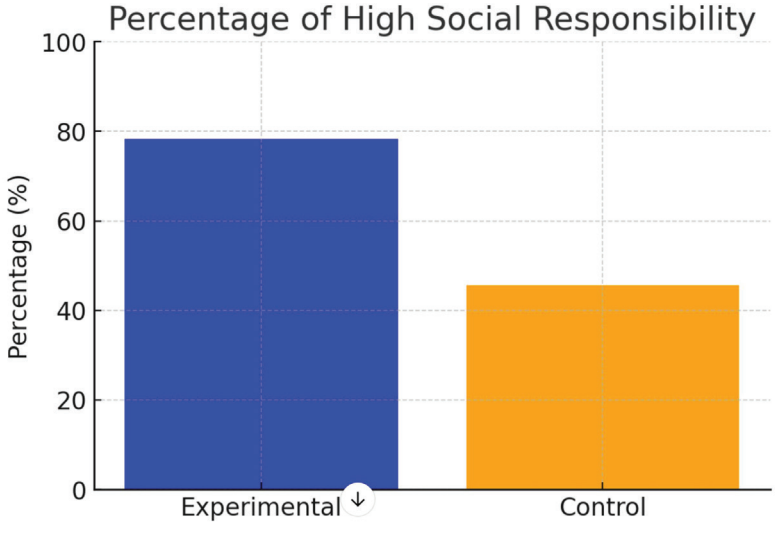

Figure 2: Dynamics of Social Responsibility Changes

Longitudinal analysis showed a significant increase in social responsibility indicators in the experimental group. By the end of the study, 78.3% of participants in volunteer activities demonstrated a high level of social responsibility compared to 45.7% in the control group ($\chi^2 = 15.6$, $p < 0.001$).

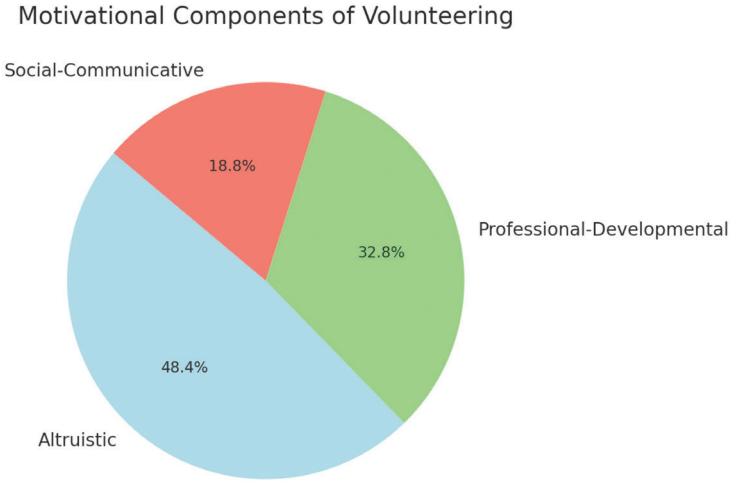

Figure 3: Factor Analysis of Motivational Components

Results of factor analysis revealed three key components of motivation for volunteer activities:

- altruistic motivation (explains 42.3% of variance);
- professional development motivation (28.7% of variance);
- social-communicative motivation (16.4% of variance).

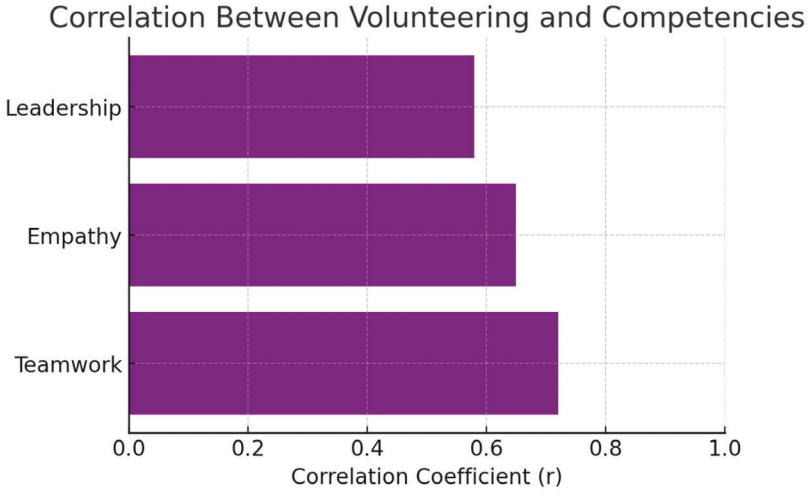

Figure 4: Correlation Between Volunteering and Competencies

Correlation analysis revealed a strong positive relationship between the duration of participation in volunteer activities and the development of the following competencies:

- teamwork skills ($r = 0.72$, $p < 0.001$);
- empathic abilities ($r = 0.65$, $p < 0.001$);
- leadership qualities ($r = 0.58$, $p < 0.001$).

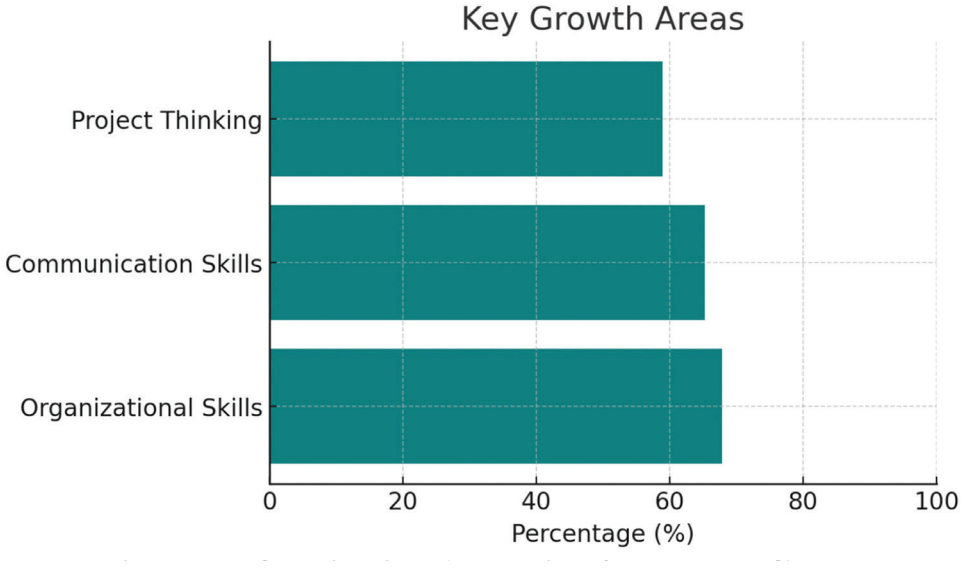

Figure 5: Qualitative Analysis of Personal Growth

Content analysis of open-ended questions revealed the main directions of personal growth among volunteer activity participants:

1. Enhancement of organizational competencies (noted in 67.8% of respondents);
2. Development of communication skills (65.3%);
3. Formation of project thinking (58.9%).

The obtained results indicate a significant impact of volunteer activities on the formation of students' social responsibility. The identified patterns confirm the effectiveness of integrating volunteer practices into the educational process of higher education institutions as a tool for developing socially responsible individuals.

Conclusions. The conducted research confirmed the significant role of volunteer activities in forming social responsibility among higher education students. The obtained empirical data demonstrate statistically

significant differences between the experimental and control groups, where student volunteers showed a higher level of social responsibility development ($t(118) = 4.32$, $p < 0.001$). The study revealed a substantial increase in social responsibility indicators among 78.3% of volunteer activity participants compared to 45.7% in the control group, indicating a significant impact of volunteer activity on the formation of socially responsible individuals in the university environment. Comprehensive analysis of research results allowed for the identification of key competency development among student volunteers, including teamwork skills ($r = 0.72$), empathic abilities ($r = 0.65$), and leadership qualities ($r = 0.58$). Factor analysis of motivational components revealed three dominant directions: altruistic motivation, explaining 42.3% of variance, professional development motivation (28.7% of variance), and social-communicative motivation (16.4% of variance), indicating the multifaceted nature of volunteer activities' impact on students' personal development. Based on the obtained empirical data, it is deemed appropriate to implement practical recommendations aimed at optimizing the integration of volunteer activities into higher education programs. Specifically, it is recommended to implement a systematic approach to including practical volunteering components in curricula, creating sustainable infrastructure for supporting volunteer activities at universities, and developing inter-university cooperation in this field. Special attention should be paid to implementing a system for recognizing and encouraging student volunteer activities as a significant component of their professional portfolio, as well as organizing regular monitoring of volunteer program effectiveness. As prospective directions for further scientific inquiry, it is recommended to focus on studying the long-term impact of volunteer activities on graduates' professional development and developing innovative methodological approaches to evaluating the effectiveness of volunteer programs in higher education. The obtained research results can serve as a theoretical and methodological basis for developing educational policies and programs for volunteer movement development in higher education institutions, contributing to the formation of a socially responsible professional community.

References

Borodayeva, G. G., & Rudneva, I. A. (2014). Volonterskaya deyatel'nost' kak faktor formirovaniya lichnosti studenta [Volunteer activity as a factor in the formation of student personality]. Sovremennyye problemy nauki i obrazovaniya – Modern problems of science and education, (4), 54-54 [in Russian]

Cívico-Ariza, A., Colomo-Magaña, E., González-García, E., & Sánchez-Rivas, E. (2020). Volunteering in the university context: Student perception and participation. *Education Sciences*, *10*(12), 380

Dorozhnaya karta po razvitiyu volonterskoy deyatel'nosti na 2021-2023 gody [Road Map for the Development of Volunteer Activities for 2021-2023]. Ministerstvo informatsii i obshchestvennogo razvitiya RK – Ministry of Information and Social Development of the Republic of Kazakhstan [in Russian]

Holdsworth, C., & Quinn, J. (2010). Student volunteering in English higher education. *Studies in Higher Education*, *35*(1), 113-127

Holmes, K., Paull, M., Haski-Leventhal, D., MacCallum, J., Omari, M., Walker, G., ... & Maher, A. (2021). A continuum of University student volunteer programme models. *Journal of Higher Education Policy and Management*, *43*(3), 281-297

McCABE, T. L., White, K. M., & Obst, P. L. (2007). The importance of volunteering functions to university students. *Australian Journal on Volunteering*, *12*(2), 50-58

Mirsafian, H., & Mohamadinejad, A. (2012). Sport volunteerism: a study on volunteering motivations in university students

Paull, M., Omari, M., MacCallum, J., Young, S., Walker, G., Holmes, K., ... & Scott, R. (2017). Matching expectations for successful university student volunteering. *Education+ Training*, *59*(2), 122-134

Paull, M., Scott, R., MacCallum, J., Walker, G., Omari, M., Young, S., ... & Holmes, K. (2015). University student volunteering: What's in a name? *Third Sector Review*, *21*(2), 49-74

Pevnaya, M., & Zborovskiy, G. (2019). Upravleniye volonterstvom: mezhdunarodnyy opyt i lokal'nyye praktiki [Volunteer Management: International Experience and Local Practices]. 2nd ed. Monograph. Litres [in Russian]

Prikaz i.o. Ministra informatsii i obshchestvennogo razvitiya RK ot 11 fevralya 2020 goda № 47 "Ob utverzhdenii Pravil predostavleniya grantov dlya nepravitel'stvennykh organizatsiy v tselyakh podderzhki volonterskoy deyatel'nosti" [Order of the Acting Minister of Information and Social Development of the Republic of Kazakhstan dated February 11, 2020 No. 47 "On Approval of the Rules for Providing Grants to Non-Governmental Organizations to Support Volunteer Activities"] [in Russian]

Prikaz Ministra informatsii i obshchestvennogo razvitiya Respubliki Kazakhstan ot 30 oktyabrya 2020 goda № 382 "Ob utverzhdenii Pravil vozmeshcheniya raskhodov volonterov" [Order of the Minister of Information and Social Development of the Republic of Kazakhstan dated October 30, 2020 No. 382 "On Approval of the Rules for Reimbursement of Volunteers' Expenses"] [in Russian]

Prikaz Ministra informatsii i obshchestvennogo razvitiya RK ot 19 oktyabrya 2020 goda №366 "Ob utverzhdenii pravil formirovaniya i vedeniya edinoy informatsionnoy sistemy volonterskoy deyatel'nosti" [Order of the Minister of Information and Social Development of the Republic of Kazakhstan dated October 19, 2020 No. 366 "On Approval of the Rules for the Formation and Maintenance of a Unified Information System for Volunteer Activities"] [in Russian]

Vereshchak, Yu. V. (2018). Mir ekologicheskogo volonterstva [World of Environmental Volunteering]. Moscow: GBU goroda Moskvy "Mosvolonter", 90 [in Russian]

Zakon Respubliki Kazakhstan ot 30 dekabrya 2016 goda № 42-VI ZRK "O volonterskoy deyatel'nosti" [Law of the Republic of Kazakhstan dated December 30, 2016 No. 42-VI "On Volunteer Activities"] [in Russian]

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BASICS OF SELF-ORGANIZATIONAL CULTURE FORMATION IN FUTURE SOCIAL TEACHERS

Abstract

Modern society's requirements for university graduates include not only the ability to work in their professional field, but also the readiness for continuous learning, innovation and active work. That's why, in the pedagogical process of a university, it is becoming increasingly important to manage the process of developing students' self-organization skills. To cultivate an individual's ability to self-organize, it is essential to view education as a fundamental function of culture—a driving force behind the emergence of new cultural forms and the extended reproduction and transmission of cultural values. This study aims to promote the holistic development of future professionals by fostering their capacity for self-governance, self-regulation, and the adoption of a culturally appropriate way of life. Our analysis demonstrates that the culture of self-organization, nurtured within the educational process, plays a crucial role in professional success, creative self-development, and personal growth.

Keywords: culture of self-organization, students, approach, formation, features.

Introduction. Self-organization is a systemic concept that integrates in its structure the whole variety of self-processes, self-analysis, self-diagnosis, self-design, self-control, self-assessment, self-disclosure, self-actualization, self-regulation, self-determination, self-education, etc. Given the increasing demand for a project-based lifestyle and the wealth of information and communication available, it is not surprising that self-organization has become a significant focus in psychology and pedagogy. In today's society, individuals are constantly engaged in various projects, both big and small, in their professional, personal, and everyday

lives. In order to be successful, one must be able to identify their needs and effectively set goals and objectives to achieve them. A self-organizing individual is able to tackle tasks efficiently, problem-solve effectively, demonstrate initiative and creativity, and take responsibility for the outcomes of their projects. They are adaptable and willing to adjust their approach if things don't go as planned.

A distinctive feature of any self-organization is its purposeful, but at the same time native, spontaneous character. The processes of self-organization are closely autonomous. The most important feature is the ability to accumulate and use previous experience, which undoubtedly acts as a continuous process. For a personality, this is a very important value moment of self-building of a living thing, the process of birth, self-production, undergoing directed irreversible changes, destruction and death of semantic formations, in which the regulatory component can determine the possibility of purposeful and conscious control of ongoing processes. The processes of self-organization on the way to the structure of the elements can also arise spontaneously, causing to the emergence of new relationships between elements and emergent formations. In the educational process of modern universities, the role of students has changed considerably. They move from passive subjects to active participants in their educational and professional activities. Therefore, the educational approach emphasizes the activation of self-directed and creative students in their studies and future careers. However, the achievement of this change requires traditional scientific and methodological support for specialist training. As a result, the demand for more active and dynamic forms of teaching, learning and evaluation is increasing. In order to effectively implement these methods, it is essential that students develop the abilities for self-organizing their educational and professional activities. Basically, modern universities strive to give students autonomy by transforming their role from passive recipients to active participants in the education process.

Materials and Methods. The understanding of self-organisation began to be studied by researchers in the middle of the 20th century, acting as the basis for controlling arbitrary processes of a system. W. Ross Ashby first defined and introduced the term "self-organising system" into the scientific language in 1947. Self-organisation occurs when a system composed of many interacting elements spontaneously forms patterns or structures without external guidance or control. This phenomenon is often associated with the emergence of complexity, where the collective behaviour of a system's components gives rise to new properties that cannot be attributed to any individual part of the system (Ashby, 1947).

Within the framework of cybernetics, the concept of self-organisation was first studied by foreign scientists (Wiener, 1961; Ashby, 1966, etc.), and then by representatives of the scientific community of the Soviet Union (Lerner, 1967; Yudin, 1970; Pushkin, 1974, etc.).

Based on the thoughts of the German theoretical physicist H.Haken, systems can be defined as self-organising, provided that they can acquire any spatial, temporal or functional structure without being subjected to external specific influence (Haken, 2006). In this sense, if we conceive of man as a unified biological system without external influence, which can independently organise and control internal processes, then this confirms the above-mentioned scientists' thoughts that man is capable of independently organising his activities consciously, giving them an arbitrary character.

As a biological system that follows its laws of development, each individual student represents a self-organising system capable of adapting to certain internal and external conditions. According to Zimnyaya, independent work is defined as objective and internally motivated and encompasses the deliberate actions of a subject performed in a structured manner, and self-correction is an important aspect of both the process and the result. Successful engagement in independent work requires a considerable degree of self-conscience, reflective capabilities, self-discipline and personal responsibility. These characteristics contribute to the effective execution of independent tasks and tasks

as individuals independently navigate their learning journey, take ownership of their academic pursuits and monitor and adapt their progress towards the objectives they desire (Zimnyaya, 1991).

An ability to adapt to changing circumstances and overcome complex challenges is crucial to professional success. The self-organisational culture equips students with the flexibility and resilience they need to thrive in a varied and dynamic environment. Beyond academic endeavours, self-organisation skills can be applied to various areas of life, and students can balance academic pursuits, personal commitments and extracurricular activities.

In the educational process of modern universities, the role of students has changed considerably. They move from passive subjects to active participants in their educational and professional activities. Therefore, the educational approach emphasises the activation of self-directed and creative students in their studies and future careers. However, the achievement of this change requires traditional scientific and methodological support for specialist training. As a result, the demand for more active and dynamic forms of teaching, learning and evaluation is increasing. In order to effectively implement these methods, it is essential that students develop the abilities for self-organising their educational and professional activities. Basically, modern universities strive to give students autonomy by transforming their role from passive recipients to active participants in the education process. This requires a shift to a more engaged and active teaching methodology in which students take over the learning journey. In order to excel in such an environment, students must develop self-organisation skills and manage their academic and professional careers effectively (Kotova, 2012).

Our researchers found that in order to develop these important skills and qualities in future teachers, it is crucial for higher education universities in Kazakhstan to incorporate innovative teaching methods, experiential learning opportunities, and technology in their curriculum. Additionally, they highlighted the importance of collaboration between universities, schools, and businesses to provide students with real-world experiences and practical skills that will prepare them for the workforce.

Furthermore, Stukalenko, Naviy, and Menlibekova underscored the significance of continuous professional development for teachers in Kazakhstan, pronging that ongoing training and learning opportunities are essential for ensuring that teachers stay current with the latest research, methodologies, and technologies in the area of education. They also emphasized the importance of creating a supportive and collaborative learning environment for teachers, where they can share best practices, collaborate on projects, and receive mentorship from more experienced colleagues.

Overall, the findings of Stukalenko, Naviy, and Menlibekova suggest that investing in the education and professional development of teachers in Kazakhstan is essential for improving the quality of education in the country and preparing future generations for success in the global economy. Additionally, their research highlights the importance of creating a system that supports and values teachers, giving them the tools and resources they need to excel in their roles and contribute to the overall growth and development of Kazakhstan's education system.

The study by Yertargynkyzy, Akhmetova, Arinova, and Moldassan (2016) found that motivations for professional and educational pursuits are linked to self-development in these areas. They discovered a strong positive relationship between motivation levels and the ability to engage in self-improvement. Higher motivation levels were associated with increased capacity for professional and pedagogical growth, leading to the development of professional values among students.

The development of self-organization skills depends heavily on the nature of communication in the "teacher-student" dialogue. However, empirical evidence suggests that traditional methods of interaction between teachers and students still dominate the education process. Students rarely engage in the formation of

their educational path, and forms of interaction with teachers are usually frontal and without personalization. As a result, the necessity to establish a personality-oriented interaction between university teachers and students is clearly contradictory to the actual experience of such interactions.

The educational research has illuminated the different requirements students encounter when entering universities. These conditions include various aspects of educational activities, the interaction dynamics within student groups and relations with teachers. The transition from school to university requires a re-evaluation of the traditional teacher-student relationship, and certain "school" dynamics may not be suitable and effective in the university environment. This imbalance may hinder the development of healthy relationships between students and teachers and may even alter the overall structure of educational communication.

We examine the structure of self-organizational culture of university students as a unity of interconnected and interrelated components: knowledge and needs, abilities, skills, competencies, personal qualities, values, abilities.

In a more detailed description, we propose with the knowledge component, namely, ideological and subject-specific knowledge about the culture of self-organization, with students' ideas about themselves as a subject of the culture of self-organization. The most important activity component, containing skills and abilities, is responsible for mastering the skills of a culture of self-organization, conclude the ability to use the means of goal setting, planning, and organizing one's activities in students' activities. The active competence component of the culture of self-organization orients students towards cooperation, for a conscious desire for professional and personal growth, towards self-knowledge and self-improvement. A set of personality qualities represents a motivational component, reflects the motivation to form a culture of self-organization, and allows one to strive for professional success. The value component is presented by the adoption of the values of self-organizational culture, the connection of personal and professional values and meanings. The reflective component is responsible for reflective skills, possibility to evaluate and analyze oneself and the results of one's activities.

Every component performs its own function: knowledge – cognitive, activity, competence – activity-operational, motivational – upbringing , value – value-oriented, reflexive – reflexive – empathy .

We use The Self-Organization Activities Questionnaire developed Bond and Feather (Bond M. J., Feather N.T., 2018) which was translated and extended by Mandrikova E.Y. (Mandrikova E.Y.,2010). It was the basis. The main objective of the questionnaire was to determine the extent to which tactical planning and strategic goal-setting skills developed, reflecting the level of self-organisation and self-regulatory activity as a whole.

Questionnaire text:

1. It takes me a while to get going in the morning.
2. I make daily plans for my activities.
3. Unexpected events frustrate me and disrupt my routine.
4. I typically create a daily schedule and strive to stick to it.
5. I struggle to follow through and complete tasks.
6. I have difficulty stopping or abandoning a task, even if it becomes challenging.
7. I am determined to achieve my goals and will do whatever it takes.
8. I plan ahead for the next day.
9. I prioritize the present moment over past or future experiences.
10. I tend to start multiple tasks simultaneously and struggle to finish any of them.
11. I adhere to specific principles in organizing my daily activities.
12. I focus on living in the present moment.
13. I prioritize completing one task before moving on to the next.
14. I am driven by setting and achieving goals.
15. I occasionally procrastinate instead of being productive.
16. I find satisfaction in keeping a diary to track my experiences.

17. Unfinished tasks sometimes keep me up at night.

18. I have clear objectives to work towards.

19. I find pleasure in utilizing tools for time management.

20. My life is dedicated to attaining specific outcomes.

21.I struggle with keeping my affairs in order.

22.I enjoy writing evaluations of my work.

23.I have no ambitions.

24.Unfinished business often consumes my thoughts.

25.I have a clear purpose in life.

The study was conducted at Abai Kazakh National Pedagogical University with a total of 150 students, divided into 75 students from the 1st year and 75 students from the 2nd year. The questionnaire used in the study consisted of six components that assessed the students' level of self-organization in various aspects including planning, purposefulness, persistence, fixation, self-organization, and present orientation.

In the survey, a link to the Google form was sent out an electronic questionnaire to the respondents. The questionnaire was made in two languages.

Table 1 presents a summary of the survey results. Following a survey of first- and second-year students, a two-sample T-test assuming equal variance was applied to test the null hypothesis that students in pedagogical universities can develop a culture of self-organization through educational and professional activities.

Table 1. *T-Test: Two-Sample Assuming Equal Variances*

	Group 1	Group 2
Mean	113,1733338	112,29
Variance	292,4425227	339,3935146
Observations	75	75
Pooled Variance	314,9180179	
Hypothesised Mean Difference	0	
df	150	
t Stat	0,3082699008	
P(T<=t) one-tail	0,3791554117	
t Critical one-tail	1,635214448	
P(T<=t) two-tail	0,6583108235	
t Critical two-tail	1,986122468	

Results and Discussion. Modeling in education involves creating a system that replicates certain aspects and functions of the object being studied. This system includes elements such as educational goals, content, and instructional methods. It allows for a comprehensive understanding and analysis of pedagogical practices and curriculum design.

Before considering the model for the formation of a culture of self-organization among university students, we note that the concept of "formation" in the explanatory dictionary is understood as giving something a certain form, completeness. In educational practice, formation means "the use of techniques and methods (methods, means) of influencing the student's personality for creating in him a system of certain values and attitudes, competencies and skills, a way of thinking and memory", "conscious management of the process of development of a person or individual aspects of personality, qualities and properties of character and bringing them to the concrete form (level, image, idea).

During the development of a model for fostering a culture of self-organization among university students, we considered the following principles.

Student self-organization culture is defined as the ability to govern oneself, organize educational activities effectively, and value these skills as important personal attributes.

The cultivation of student self-organization culture is grounded in knowledge, active involvement, motivation, and reflection.

The process of instilling a culture of self-organization in students is influenced by their attitudes towards self-improvement and individual organization. The stronger the value placed on self-organization, the more successful the development of these skills.

The teacher's role in creating a model for fostering a culture of self-organization among students is crucial. They must actively design strategies, encourage problem-solving, reflect on values, and provide opportunities for students to cultivate this culture.

The formation of a culture of self-organization among university students is ensured through a cultural approach, which establishes the values and principles necessary for this process. This culture is fostered through both academic and extracurricular activities, in both group and individual settings. The model used for cultivating this culture involves strategic planning by instructors, as well as a theoretical understanding of self-organization culture, its components, and the scientific principles guiding the process. The principles of cooperation, dialogue, humanization, reflection, and artistic creativity are key to shaping a self-organizing culture among students, ultimately guiding the actions of the teacher in this endeavor.

The main role of a university teacher in the formation of self-organizational culture of students are: 1) the formation of students' understanding about the culture of student self-organization; 2) the formation of students' value attitude to the self-organizational culture; 3) development of students' reflective skills; 4) the formation of students' personal experience in the rational organization of educational and cognitive activities and self-government.

Taken together, the principles and directions of the teacher's activity make the content of the process of forming a culture of self-organization of students, pedagogical conditions, means and methods of its formation.

The content-technological structure of the model includes the content, forms of organization of the process of forming of self-organizational culture of students, pedagogical conditions that are significant for such formation, means and methods.

The result-evaluative block of the model structure contains indicators of the formation of the student's self-organizational culture, the levels of its formation, diagnostic methods.

The key indicators of the formation of the student's self-organizational culture are: 1) understanding about the student's self-organization culture; 2) value- motivational-attitude to the student's self-organization culture; 3) educational and professional motives; 4) reproductive skills; 5) rational organization of pedagogical activities. Diagnostic methods are: a survey, pedagogical observation, analysis and interpretation of the products of artistic and creative activity of students. The levels through which the formation of a culture of self-organization of students passes, we designated as low, medium and high.

Thus, in the model of the process of forming a culture of self-organization of students in the process of studying at a university, in our opinion, there are sufficient meaningful opportunities for realizing our goal. Similarly, the procedural aspect – specific technologies, means, methods and forms of education, also determines the productivity of the implementation of the content of the pedagogical process.

The model structure of the formation of self-organizational culture of university students make us clear to study the process of formation in more detail, to predict and implement its content, pedagogical conditions, areas of activity of the teacher, forms, methods and means of such formation. The results obtained in the course of the experimental work indicate that the students of the experimental group experienced positive changes in all the indicators we have identified.

The amount of students with a low level of formation of self-organizational culture decreased by 22.00%; the number of students with a predominance of the average level

of formation increased by 14.33%; with a predominance of a high level increased by 6.65%. In the experiment group, the reverse dynamics is observed: the number of students with a low level of formation of the culture of self-organization of the student's personality increased by 6.69%; the number of students with a predominance of the average level of formation decreased by 6.65%; the number of students with a high level has not changed.

The most important change in the experiment group is the decrease in the level of students' understanding about the culture of student self-organization, as well as the value-motivational attitude towards it. This indicates the need to broadcast in the pedagogical process of the university the value of the culture of self-organization of the individual, the implementation of purposeful work on its formation. Otherwise, over time, the level of students' knowledge about the culture of self-organization of the individual and the value attitude towards it decreases. The results of the experiment convince us of the expediency of introducing the model developed by us for the formation of a culture of self-organization of university students, which involves special work to develop such a culture throughout the entire period of study at the university.

We designed the process of forming a culture of self-organization using a descriptive model. The use of a descriptive model allowed us to solve several problems:

- study of an object (scientific research) – to most fully and accurately reflect the properties of the object;
- control – most accurately reflect the properties of an object in the operating range of changes in its parameters;
- forecasting – build a model that can most accurately predict the behavior of an object in the future;
- training – reflect the studied properties of the object in the model. The construction of a descriptive model occurs according to the following scheme: observation, coding, recording.

The descriptive model of self-organizational culture formation of students focuses on the implementation of the strategy for the development of the educational process at university and includes a set of its components: target, theoretical and methodological, scientific and pedagogical, practice-oriented, technological, methodological, effective.

The basic principles of operation of such a model should be:

– purposefulness, consistency and consistency of the educational process, focused not so much on one-time actions (which under certain conditions cannot lose their significance), but on cyclical and long-term programs;

- reliance on positive models of student behavior and their formation directly in the student environment;
- setting up direct personal contact between students and teachers,
- close connection between extracurricular work and the educational process.

The study revealed that in order to substantiate the process of forming self-organizational culture among students, it is necessary to take into account internal and external factors.

We include the following as internal factors: awareness of the personal importance of a culture of self-organization; focus on mastering the values of general culture and the culture of self-organization; a person's understanding of a generalized rule and updating of knowledge.

To external factors: understanding the essence of the culture of self-organization as a certain set of personal qualities, actions and operations of its components and methods of performing actions; organization of practical activities, participation in projects and events to develop a culture of self-organization; reflection on the level of development of the culture of self-organization; accounting and evaluation of the progress and results of activities.

Let us consider the substantive nature of the generic concept of our study "self-organizational culture of students", based on the criteria for determining the structure.

The main criterion for assessing the culture of self-organization of students is practical meaning. Zaenutdinova (2000) notes this criterion in her study and emphasizes that a practical manifestation of the self-organizational

culture of students is human self-regulation, which includes a mechanism for managing one's own physiological states (psychological states), behavior or actions – Zohar, A., & Ben-Ari, G. (2022). The next criterion is the form of presentation of the structure of students' self-organization culture. Analysis of the structural components in models related to the culture of self-organization of students (V. Graf's model of organizing life time, N.M. Peisakhov's system of self-government) and the structure of educational self-organization by Ustinova (2000) made it possible to identify the most important components of this process: goal setting, situation analysis, planning or control, correction.

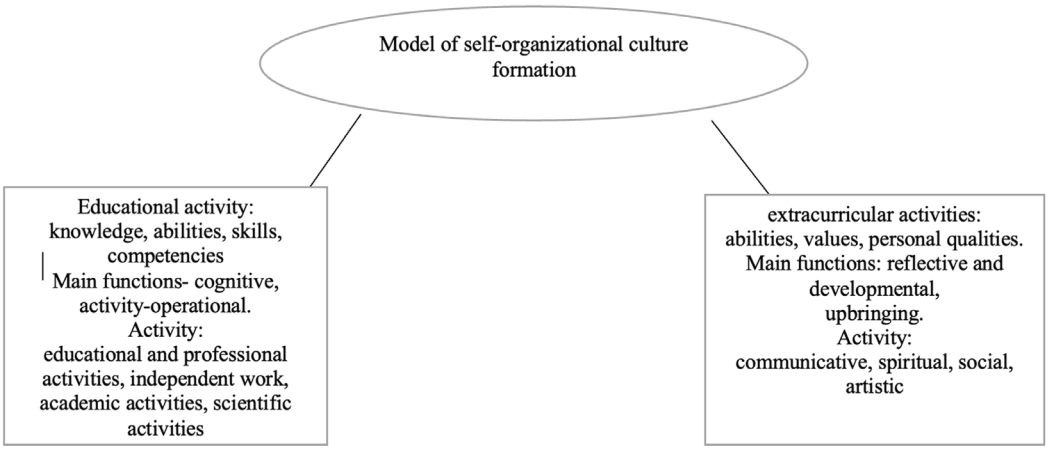

Figure 1: The model of self-organizational culture

We consider it appropriate to point these components along with personal qualities, that is, with the qualities of the subject that allow him to initiate the mechanism of organizing himself and his activities.

According to the target criterion, the need for planning and achieving set goals is formed through the exerted volitional efforts. From the point of view of T.N. Noskova and A.S. Kulikova, the target component is also responsible for positive motivation for the formation of students' self-organization skills in the information environment. This aspect, as understood by the authors, is characterized by the acceptance and retention of goals, awareness of processes or actions. An individual with developed goal-setting independently puts forward goals, independently and consciously organizes his activities to achieve them, moreover, his goal is realistic (in detail) or sustainable. With the help of the reflexive criterion of the culture of self-organization of students, the need for forecasting, planning and analysis of the activities performed is formed based on reflexive actions, management with a clearly expressed position "itself". Self-government is an important element of management. A detailed analyzing component, which is associated with the ability to look into the future and determine the prospects for activity; it is aimed at assessing one's own activities and making the necessary adjustments. It also allows you to develop abilities for self-knowledge, work on yourself and use them in professional development.

As a rule, within the framework of the personal criterion, personal qualities are improved to develop the skills of target and reflexive groups. The analysis carried out revealed important theoretical principles concerning the content and structure of students' self-organization culture. They will be used later.

In our opinion, the culture of self-organization of a student's personality is a type of personal culture with a high level of organization of oneself and one's activities, which is formed in the process of self-development on the basis of the value attitude of future specialists to independence, on the basis of the desire for effectiveness in all types of activities, manifested in the formed skills and abilities planning, monitoring the results of one's actions, which

provides the opportunity to recognize oneself as a subject of one's own life, capable of choosing rational and optimal ways to solve professional problems. Let us present the self-organizational culture of students in the form of a structural and content model.

Its essence lies in the student's awareness of his own role in the success of educational, cognitive and further professional activities, in the student's desire for self-organization (streamlining the goals and motives of self-development, skills of self-control and self-regulation of mental states, abilities for self-analysis and adequate self-esteem), as well as these actions themselves on personal self-organization, fixed in the student's mind as habitual and necessary.

Such an understanding of self-organizational culture of higher education students allows us to identify its component composition. The presented results of the experimental work also allow us to state that the educational process at the university needs time, organizational, material and technical resources for the formation of students' self-organizational culture in in the process of studying at the university.

Conclusion. The main results of the study show that self-organization culture is a conscious effort by individuals to set goals, plan, organize their time, and engage in self-understanding, self-analysis, and self-correction during learning and beyond. Student's self-organization culture is a key aspect of their personality development, allowing them to effectively organize their learning and cognitive activities. This culture consists of four interconnected components: cognitive, reflective, motivational, and activity-oriented, each serving distinct purposes. The research details that the development of a culturally self-organized personality in a pedagogical university student is a carefully planned process involving the teacher and students working together to create the necessary conditions for providing support and guidance in developing students' self-organization skills.

As a result of the theoretical analysis of the key concept of the study, we came to the following conclusions. The requirement of the modern rapidly changing professional environment from university graduates to be able to quickly respond has identified the problem of forming self-organizational culture among university students as relevant for the theory of vocational education. Independent substantive study of the culture of self-organization of university students in the theory of vocational education is still a new, little developed direction. The culture of self-organization of university students is based on their theoretical knowledge, practical skills, competencies, as well as specific personal qualities, values, abilities and is determined by the unity of its structural components. For a detailed representation of the culture of self-organization of university students, a model was developed that is based on a level depiction of the components of the self-organizational culture, their functions, distributed by type of educational and extracurricular activities.

References

Abibulaeva, A. B. (2021). Modulyaciya kak sredstvo aktivizacii myslitel'noj deyatel'nosti studentov i stimulirovaniya ix samostoyatel'noj raboty v pedagogike v vuzovskom obrazovanii [Modulation as a means of activating students' mental activity and stimulating their independent work in pedagogy in higher education]. In: Materialy mezhdunarodnoj nauchno-prakticheskoj konferencii, posvyashhennoj nezavisimosti Respubliki Kazaxstan (pp. 38-40). Shymkent [in Russian]

Agranovich, E. N. (2020). Samoorganizacija uchebnoj dejatel'nosti studentov na osnove tehnologii «tajm-menedzhment» [Self-organization of students' educational activities based on "time management" technology]. Thesis of the candidate of pedagogical sciences, Almaty [in Russian]

Ashby, W. R. (2017). Principles of the self-organizing dynamic system. The Journal of General Psychology, 37(2), 125–128

Bond, M. J., & Feather, N. T. (2018). Some correlates of structure and purpose in the use of time. Journal of Personality and Social Psychology, 55, 321-329

de Bruijn-Smolders, M., Timmers, C. F., Gawke, J. C., Schoonman, W., & Born, M. P. (2016). Effective self-regulatory processes in higher education: Research findings and future directions. A systematic review. Studies in Higher Education, 41(1), 139–158. https://doi.org/10.1080/03075079.2014.915302

Golding, C. (2019). Discerning student thinking: A practical theoretical framework for recognising or informally assessing different ways of thinking. Teaching in Higher Education, 24(4), 478–492. https://doi.org /10.1080/13562517.2018.1491024

Gorban, G., Guba, N., Mosol, N., Hrandt, V., & Lukasevich, O. (2022). Specifics of Self-organisation of Student's Educational Activity During the COVID-19 Pandemic. Revista Românească pentru Educaţie Multidimensională, 14(1), 283-304. https://doi.org/10.18662/rrem/14.1/519

Haken, H. (2006). Self-Organization. In: Synergetics. Springer Series in Synergetics, vol 1. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-88338-5_7

Ishkov, D. A. (2014). Uchebnaya deyatel'nost' studenta: psihologicheskie faktory uspeshnosti [Student's educational activity: psychological factors of success]. Moscow: ASV [in Russian]

Knyaz'kova, O. N. (2022). Formirovanie kul'tury samoorganizacii studentov vuza [Formation of a culture of self-organization of university students]. Dissertation [in Russian].

Kotova, S. S. (2022). Samoorganizaciya uchebno-professional'noj deyatel'nosti studentov [Self-organization of educational and professional activities of students]. Monograph. Yekaterinburg: RSVPU [in Russian]

Mandrikova, E. Yu. (2010). Razrabotka oprosnika samoorganizacii dejatel'nosti (OSD) [Development of a self-organisation questionnaire (SOQ)]. Psychological diagnostics, 2, 87-111 [in Russian]

Noskova, T. N., & Kulikova, S. S. (2009). Formation of students' self-organization competence as a basis for learning in the modern educational environment of the university. Herzen State Pedagogical University of Russia Bulletin, (83), 78–87

Peijsahov, N. M., & Shevcov, M. N. (2021). Prakticheskaya psihologiya (nauchnye osnovy) [Practical psychology (scientific foundations)]. Kazan: Izd-vo Kazanskogo un-ta [in Russian]

Stukalenko, N. M., Naviy, L., & Menlibekova, G. (2016). Managing the Process of Cognitive Activity Development in Students of Pedagogic Specialties in Higher Education. International Review of Management and Marketing, 6(S3), 246-251

Wiener, N. (2021). Cybernetics: Or Control and Communication in the Animal and the Machine. MIT Press, 2nd revised. ISBN 978-0-262-73009-9

Yertargyinkyzy, D., Akhmetova, G., Arinova, B., & Moldassan, K. (2016). Interconnection of professional motivation and self-development in the way of searching professional ideal in future social pedagogues. The Social Sciences, 11(15), 3793-3797

Zohar, A., & Ben-Ari, G. (2022). Teachers' knowledge and professional development for meta-cognitive instruction in the context of higher order thinking. Metacognition and Learning, 17(3), 855–895. https://doi. org/10.1007/s11409-022-09310-1

Zohar, A., & Lustov, E. (2018). Challenges in addressing metacognition in professional development programs in the context of instruction of Higher-order thinking. In W. Yehudith & L. Zipora (Eds.), Contemporary pedagogies in Teacher education and development (pp. Ch. 6). IntechOpen. https://doi.org/10.5772/intechopen.76592

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PROFESSIONAL DEVELOPMENT OF NOVICE TEACHERS: A REVIEW OF INTERNATIONAL EXPERIENCE

Abstract

The professional development of novice teachers plays a crucial role in shaping educational quality and student outcomes. This study examines teacher preparation and professional development systems in high-performing education systems, focusing on mentoring, structured induction, and career progression. Using a comparative approach, the research analyzes the distinct strategies employed in different national contexts and identifies key elements that contribute to teacher effectiveness and retention. The study highlights the importance of combining academic training with practical experience, ensuring rigorous selection criteria, and providing sustained professional support for novice teachers. The findings offer insights into best practices that can be adapted to improve teacher development policies, particularly in education systems undergoing reform. By contextualizing international models, this study contributes to the broader discourse on teacher education and provides evidence-based recommendations for strengthening teacher professional development. The research underscores the need for systematic and sustainable approaches to enhance teacher preparedness, ultimately supporting long-term improvements in teaching quality and educational outcomes.

Keywords: novice teachers, professional development, induction programs, mentoring, teacher education, pre-service.

Introduction. The professional development of novice teachers is a cornerstone of global educational excellence. As the quality of teaching directly influences student outcomes, effective strategies for supporting novice educators are essential for building robust educational systems (Darling-Hammond et al., 2017). High-performing nations such as Singapore, Japan, and Canada provide compelling examples of how systematic approaches to teacher development can enhance teaching efficacy and long-term professional growth. This study explores their practices, which are shaped by distinct cultural, historical, and socio-economic contexts, yet share common elements like mentoring programs, collaborative learning environments, and reflective practices (Ingersoll & Strong, 2011). Japan exemplifies a structured approach to novice teacher support through robust mentoring programs and consistent supervision. Research highlights the role of personalized digital tools and continuous guidance in facilitating the professional growth of Japanese teachers (Doig & Groves, 2011). Similarly, Singapore is renowned for its comprehensive teacher development system, which integrates mentorship with a culture of lifelong learning. Canada, on the other hand, emphasizes research-based teacher education programs. Comparative studies reveal that Canadian teacher educators adopt specialized knowledge frameworks and prioritize research-based pedagogy, further underscoring the diversity in teacher development strategies globally (Clandinin et al., 2018). Amid these international benchmarks, Kazakhstan emerges as a unique case study, undergoing transformative educational reforms aimed at addressing critical challenges such as teacher

shortages and disparities in teaching quality. Despite substantial efforts, the professional development system for novice teachers in Kazakhstan remains underexplored, making this research particularly timely. By examining global best practices, this study seeks to identify actionable strategies to enhance novice teacher support in Kazakhstan, contributing to the country's broader educational reform agenda.

A key focus of this research is bridging the gap in understanding how mentorship and reflective practices can be tailored to Kazakhstan's specific socio-economic and cultural context. While successful teacher development systems share universal elements, this study highlights the need for localized adaptations to achieve sustainable improvements. Furthermore, the absence of a unified theoretical framework for mentoring, coupled with variations in its implementation and evaluation, underscores the challenges novice teachers face as they transition into professional practice (Hobson et al., 2009). The present research aims to analyze and compare professional development systems for novice teachers in Singapore, Japan, and Canada, offering evidence-based recommendations for Kazakhstan. By drawing from international examples and addressing research gaps, this study seeks to develop a systematic approach for enhancing teacher adaptation processes in Kazakhstan. This research underscores the novelty of incorporating global best practices into Kazakhstan's educational landscape and emphasizes its potential to contribute to global discourse on effective teacher development.

Materials and Methods. The present study undertakes a comparative education research project using Bereday's (1964) juxtaposition method, a widely acknowledged approach in the field of comparative education. This model offers a structured and systematic framework for analyzing the complexities of educational systems in diverse contexts. What sets Bereday's model apart is its ability to bridge disciplines, drawing on insights from anthropology, history, sociology, and political science (Adick, 2018). This interdisciplinary perspective enriches the analysis by situating educational practices within broader societal frameworks, often uncovering deeper principles and patterns that might otherwise go unnoticed. For example, historical trends and cultural values significantly shape teacher development systems, influencing both the structure of training programs and the professional expectations placed on educators. In this study, the juxtaposition method enables a parallel examination of teacher development systems in Singapore, Japan and Canada, three countries renowned for their distinctive and highly effective approaches to education. By aligning key aspects across these systems, the method allows for a detailed exploration of shared characteristics as well as unique strategies. The study organizes data into comparable categories, such as pre-service teacher training requirements, admission criteria for teacher education programs, induction practices for newly trained educators, and ongoing professional development initiatives (Bingham et al., 2019). This classification respects the unique contexts of each country while enabling meaningful comparison.

For data collection, the study employed qualitative document analysis, a method that involves examining written records to gain insights into specific facts and phenomena (Bayar, 2014). Following Bereday's (1964) comparative framework, the literature was classified into three types: primary, secondary, and auxiliary sources. Primary sources included official reports from governmental and public institutions, legislative records, conference proceedings, public opinion publications, and other key documents. For this research, great care was taken to identify and review primary sources, which included materials from the official websites of the Ministries of Education in the selected countries, data from the OECD portal, peer-reviewed journal articles, and related academic studies. A structured four-step process was used to collect and review documents, as outlined in Figure 1:

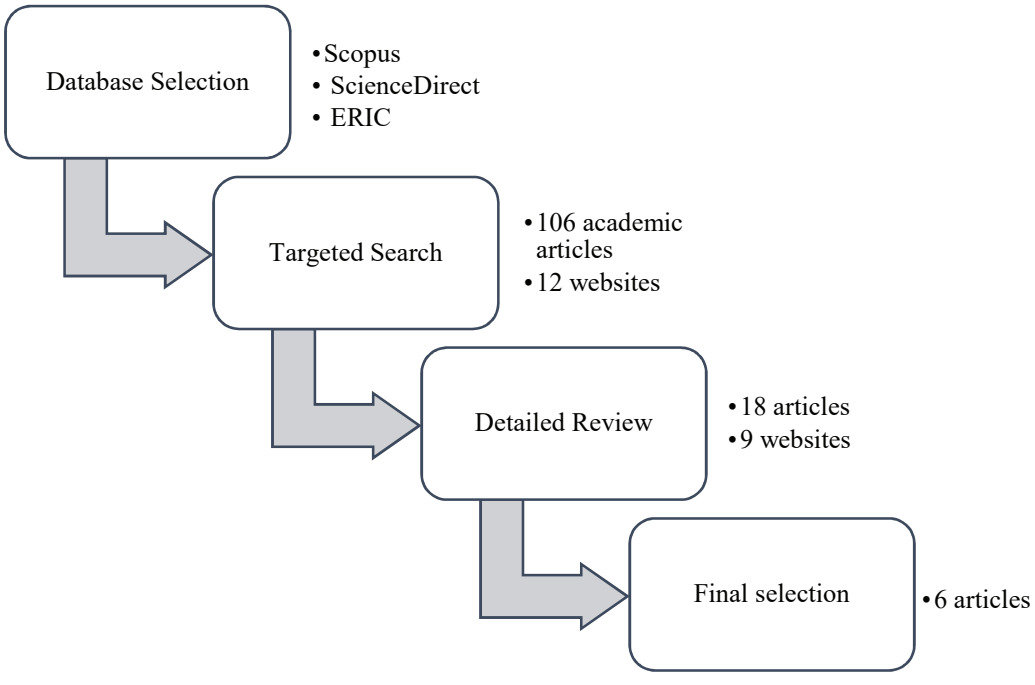

Figure 1: Data selection process

The first step involved selecting suitable databases, such as Scopus, ScienceDirect, and ERIC. Searches also included reputable websites from non-governmental organizations, verified information platforms, and official national resources related to educational systems and policies. Pre-determined keywords were used to perform targeted searches within these databases (Table 1).

Table 1. *Keywords and databases*

Keywords		Professional Development of teachers in Japan/Singapore/Canada, Teacher Training in Japan/Singapore/Canada
Database	Academic	Scopus, Science direct, ERIC
	Websites	European Commission, United Nations Educational, Scientific and Cultural Organization (UNESCO), Encyclopaedia Britannica, Ministry of educations, The Organisation for Economic Co-operation and Development (OECD), United Nations Development Programme (UNDP), United Nations (UN), National Center on Education and the Economy (NCEE European Commission, United Nations Educational, Scientific and Cultural Organization (UNESCO), Ministry of Educations (MoE), The Organization for Economic Co-operation and Development (OECD), United Nations Development Programme (UNDP), United Nations (UN), National Centre for Entrepreneurship in Education (NCEE)

The initial search yielded 106 academic articles and 12 websites with potentially relevant information. The next step was to filter the articles and documents based on criteria such as open access availability, relevance to the social sciences, year of publication (from 2005 onward), and access to full-text versions. After this process, 18 articles and 9 websites were shortlisted for further evaluation. A detailed review of the shortlisted materials resulted in the final selection of six journal articles that provided comprehensive insights into teacher

professional development in Singapore, Japan and Canada. The analysis of these documents involved a systematic content review, with findings carefully organized using content analysis methods. Internationally recognized data sources, such as those from the OECD and PISA, were also incorporated to ensure reliability and a broader perspective.

Results. Pre-service teacher training systems vary significantly across countries, each with unique pathways for individuals aspiring to become teachers. However, there are several commonalities in the training processes in countries like Singapore, Japan and Canada in Table 2 below.

Table 2. *Pre-service teacher training systems*

Country	Pre-Service Teacher Training	Degree/Certification	Institutions
Singapore	Centralized (NIE)	University degree, specialized	National Institute of Education (NIE)
Japan	Open System/University Degree (Bachelor's degree, Master degree)	Bachelor's/Master's, certified	Universities, training institutions
Canada	Bachelor's degree + B.Ed.	Bachelor's + B.Ed., certification	Universities, provincial regulators

In Canada, pre-service teacher training typically begins after a candidate has completed a Bachelor's degree in a relevant field, such as arts or science. Candidates then pursue a Bachelor of Education (B.Ed.) degree, which is a mandatory one- to two-year program that prepares them for teaching at the primary or secondary school level (Nuland, 2011). This program includes both academic coursework and practical teaching experience through practicum placements. Upon graduation, teacher candidates must obtain certification from the provincial or territorial regulatory body, which may involve additional requirements like passing exams or a background check. Japan, in contrast, offers more flexibility in the pathways to teaching. While individuals can pursue a university degree in education to work as teachers, there is also an alternative route through certified training programs. These programs are available through various institutions and are aimed at individuals from diverse fields who wish to become early childhood or primary school teachers. Additionally, graduates from university faculties of education can qualify to teach at the primary and secondary school levels. Japan's open system allows people from a range of academic backgrounds to transition into teaching careers through certification programs (National Institute for Educational Policy Research [NIER], 2013). In Singapore, all teachers are required to obtain a university degree, specifically through the National Institute of Education (NIE, 2013), which is part of Nanyang Technological University. The NIE offers a variety of teacher training programs for early childhood, primary, and secondary school teachers, ensuring that all teachers meet the same high standards of education and training (Bautista, 2015; NIE, 2013).

The induction processes for graduates from teacher training programs in Singapore, Japan, and Canada show notable differences. In Japan, teacher candidates must pass a series of rigorous examinations that evaluate their language proficiency, writing skills, classroom management abilities, and understanding of psychology, pedagogy, and teaching methods (NIER 2013; Orakçı 2015). The assessment systems in Japan and Singapore share similarities as they both target skills like language, teaching, and classroom management. However, Japan takes an additional step by placing novice teachers under a one-year probationary period, during which their performance is carefully evaluated (Tonga et al., 2022). Table 3 below provides a comparative overview of the induction processes in these countries.

Table 3. *The induction processes for novice teachers in Singapore, Japan, and Canada*

Aspect	Japan	Singapore	Canada
Entrance Exams	Exams (language, classroom management, psychology, pedagogy, teaching methods).	No exams	No exams
Induction Duration	One-year probation, evaluation	No probation, direct MOE hire	1–2 years, mentorship focus
Support for Novice Teachers	Evaluation in probation	Scholarships, salaries for pre-service	Structured induction, resources, learning, partnerships

In contrast to Japan, both Singapore and Canada implement quota systems to regulate the number of individuals admitted to teacher training programs. This approach ensures a balance between the number of teachers entering the profession and the actual demand for their services. Unlike Japan, where aspiring teachers must pass additional examinations before commencing their careers, Singapore and Canada adopt less exam-focused pathways into teaching (Tonga et al., 2022; Orakçı, 2015). In Singapore, the Ministry of Education (MoE, 2014) plays a central role by offering scholarships and competitive salaries to pre-service teachers during their training. Novice teachers are directly employed by the MOE without the need for induction exams, streamlining their transition into the workforce (Orakçı, 2015). Canada's approach emphasizes professional growth and career development for new teachers, with comprehensive support systems designed to help them adjust to school environments and refine their teaching skills. Provincial induction programs, such as Ontario's New Teacher Induction Program (NTIP), last one to two years and focus on integration into the school culture, effective classroom management, and the improvement of teaching strategies. These programs combine mentorship, professional learning opportunities, and access to resources, ensuring that new teachers receive structured support for a smoother transition into their roles. This collaborative approach, involving universities, schools, and educational authorities, promotes continuous professional development and enhances the quality of education through teacher growth.

A key distinction among these countries lies in the duration and design of their induction periods. Japan's system requires teacher candidates to pass multiple examinations to secure employment, reflecting its emphasis on rigorous entry requirements. In contrast, Singapore and Canada focus on managing teacher supply and demand, opting for flexible and supportive induction systems that avoid additional exam requirements. This strategy allows for a broader and more diverse applicant pool for teacher training programs, enabling the selection of highly skilled and motivated candidates. Ultimately, this enhances the quality of teacher training and elevates the status of the teaching profession in both countries. When comparing the professional development systems for novice teachers in Singapore, Japan, and Canada, both similarities and differences emerge (Zhang, 2024). Each country underscores the value of structured in-service education, mentorship, and opportunities for professional growth. Table 4 summarizes key aspects of the professional development systems across these three countries:

Table 4. *The key aspects of the professional development (PD) systems for novice teachers in Singapore, Japan, and Canada*

Aspect	Japan	Singapore	Canada
In-service Education	Mentoring, In- service Training	In- service Training, Higher Education	Mentoring, In- service Training

Mentoring System	Assigned mentor, collaboration	Part of training, mentorship options	Experienced mentors (1–2 years)
Mentoring Duration	1 year (60 days in-school, 30 out-of-school)	Variable, program-based	1–2 years (province/district-based)
In-school Training	Schools + additional NIE courses	60 days with mentor	Provided by school mentors

Both Japan and Canada implement mentoring systems for novice teachers, although their approaches differ significantly in structure and emphasis. In Canada, new teachers are paired with experienced mentors, often within the same subject area, for a period that varies from one to two years depending on the province or district. These mentors provide support in lesson observation, feedback, teaching strategies, and assessment practices (Kutsyuruba, 2024). The mentoring process is closely monitored by school principals, who ensure that both mentors and novice teachers achieve their objectives (NTIP, 2022). By contrast, Japan integrates mentoring into a mandatory, comprehensive one-year in-service education program. This program includes 60 days of in-school training under a mentor teacher and 30 days of out-of-school education. Emphasizing collaboration, lesson planning, and mutual observation, Japan's system fosters a hands-on and integrative learning environment for novice teachers (OECD, 2016). Singapore takes a slightly different approach by offering extensive in-service education opportunities for novice teachers through its National Institute of Education (NIE, 2013). These resources include courses, conferences, forums, and seminars organized by the Ministry of Education through its Network of Teachers. Additionally, the NIE collaborates with the Ministry to provide scholarships that enable teachers to pursue advanced education, either locally or abroad. Singapore's career step system, as described by Vázquez et.al. (2024), offers teachers a choice of three distinct career paths—teaching, leadership, or expertise. Each path comes with opportunities for promotion and salary increases based on professional evaluations that consider practice, leadership capabilities, and qualifications (NIE, 2013). In Japan, out-of-school education complements in-school training with programs provided by universities and non-governmental organizations, enriching the professional growth of novice teachers (Admiraal et.al, 2024). Singapore, however, provides teachers with unparalleled opportunities to pursue advanced degrees, such as master's and doctoral programs, while continuing to receive their salaries. This is a unique feature not typically available in Japan or Canada, where in-service training focuses more on skill enhancement than on pursuing higher education qualifications (Tonga et.al, 2022).

Discussion. The comparative analysis of pre-service teacher training and professional development systems in Singapore, Japan, and Canada reveals both common priorities and distinct differences in preparing and supporting educators. While each country operates within unique socio-political and educational contexts, their shared commitment to high-quality teacher training and continuous professional growth aligns with existing research on effective teacher development (Darling-Hammond, 2017; Ingersoll & Strong, 2011). However, the specific strategies used to implement these objectives differ based on national priorities, educational philosophies, and systemic needs.

A key similarity across the three countries is the integration of academic preparation with practical training. Research indicates that combining theoretical coursework with hands-on experience significantly enhances teacher competence and classroom readiness (Bautista et al., 2015). Singapore achieves this through its centralized National Institute of Education (NIE, 2013), ensuring consistent training quality aligned with national educational goals. Japan adopts a more flexible system, offering teacher training through both university degrees and alternative certification pathways, which reflects broader trends in teacher education that emphasize diverse entry routes (NIER, 2013). Canada follows a sequential model, where

candidates complete a general bachelor's degree before entering a Bachelor of Education (B.Ed.) program. This sequential structure is in line with studies that highlight the benefits of staged professional training, allowing candidates to develop subject-matter expertise before focusing on pedagogical skills (Kutsyuruba & Walker, 2024). Significant differences emerge in the induction processes for novice teachers. Japan enforces a rigorous selection process that includes multiple exams in pedagogy, language proficiency, and classroom management, followed by a one-year probationary period with structured mentoring (Tonga et al., 2022). This approach aligns with research on teacher quality assurance, which emphasizes structured evaluations—including standardized assessments, classroom observations, and performance appraisals—as key mechanisms for maintaining high professional standards (OECD, 2016). Japan's model, which incorporates multiple subject-matter and pedagogical exams, followed by a one-year probationary period with structured mentorship, exemplifies this framework by ensuring that only candidates who meet rigorous competency benchmarks enter the profession. Studies have shown that countries with high-stakes teacher certification exams often experience a correlation between stringent selection processes and improved instructional quality (Han et al., 2020). In contrast, Singapore places less emphasis on examinations and more on financial incentives, scholarships, and direct employment by the Ministry of Education. Singapore leverages financial incentives and career pathways to attract and retain high-quality teachers, a strategy supported by research indicating that well-structured financial incentives can improve teacher motivation and long-term commitment to the profession (OECD, 2018; Orakçı, 2015). Studies have shown that financial incentives, when combined with clear career progression opportunities, lead to higher job satisfaction and reduced attrition rates (Podolsky et al., 2019). This contrasts with Japan's model, which prioritizes rigorous selection and structured mentorship, aligning with research that emphasizes professional support over monetary incentives as a driver of teacher effectiveness (Tonga et al., 2022). Canada, with its decentralized model, balances financial and non-financial incentives, underscoring findings that flexible support systems tailored to regional needs can enhance professional development outcomes (Zhang, 2024). Canada prioritizes mentorship and gradual professional integration through structured induction programs, such as Ontario's New Teacher Induction Program (NTIP), which provides targeted mentorship and support (NTIP, 2022). This approach is consistent with research suggesting that sustained mentorship improves teacher retention and job satisfaction (Admiraal et al., 2024).

Regarding ongoing professional development, all three countries recognize the importance of mentoring and in-service training, but their approaches differ in scope and structure. Japan mandates a structured mentoring program within a compulsory one-year in-service education framework, emphasizing collaboration through lesson planning, observation, and feedback (OECD, 2016). This aligns with studies that highlight the benefits of structured mentoring in enhancing teaching efficacy (Kutsyuruba & Walker, 2024). Singapore, on the other hand, integrates professional development with career progression, allowing teachers to pursue advanced degrees while receiving financial support. This incentive-driven model reflects research findings on the effectiveness of career-ladder frameworks in improving teacher motivation and performance (Vázquez et al., 2024). Canada fosters collaboration among schools, universities, and regulatory bodies, providing professional learning opportunities at the provincial level. This decentralized approach aligns with studies that advocate for flexible, regionally tailored professional development systems (Zhang, 2024).

These findings contribute to the broader discourse on teacher development by demonstrating how distinct policy mechanisms influence teacher effectiveness, retention, and professional growth. Unlike previous studies that analyze teacher training and induction in isolation, this research provides a comprehensive cross-national comparison, revealing how

systemic differences shape professional outcomes. The study offers novel insights into the balance between centralized and decentralized teacher development approaches, showing that while structured mentorship (Japan), financial incentives (Singapore), and decentralized professional learning (Canada) each enhance teacher preparedness, their long-term impact varies based on national policy frameworks. These findings are particularly valuable for emerging education systems, such as Kazakhstan, where policymakers can draw on international best practices to design contextually relevant teacher development models. Future research could further examine the long-term impact of these models on teacher retention and student learning outcomes, particularly by investigating how sustained mentorship, financial incentives, and structured evaluation systems contribute to professional growth and job satisfaction. Specifically, longitudinal studies could explore how mentorship duration and intensity affect teacher effectiveness over time, whether financial incentives retain educators beyond the initial years, and how structured evaluation systems improve instructional quality (Liu & Johnson, 2021). Comparative longitudinal studies could provide deeper insights into which elements of these frameworks are most effective in enhancing teacher effectiveness and reducing attrition rates.

Conclusion. The study contributes to the literature by identifying key similarities and differences in teacher preparation and professional development systems in Singapore, Japan and Canada. It provides evidence on how rigorous selection, integration of academic and practical training, and structured mentoring and professional development programs impact the quality of teachers. The findings can be used to adapt international best practices to the education systems of other countries, including Kazakhstan, to improve the effectiveness of teacher preparation and professional development in the context of contemporary educational challenges.

Recommendations for Improving Teacher Professional Development in Kazakhstan:

1. Establish Comprehensive Induction Programs: Drawing inspiration from countries like Japan, where new teachers undergo a year-long compulsory in-service education program, Kazakhstan could implement structured induction programs.

2. Extend Mentorship Duration: Extending the mentoring period for new teachers to two years, as practiced in Canada, would allow for a more thorough and holistic professional development process. A longer mentorship period ensures that teachers gain deeper practical skills under the guidance of experienced mentors, addressing key areas of their professional growth and building a strong foundation for their careers.

3. Enhance Continuous Professional Development and Career Pathways: Singapore offers an exemplary model with its clear pathways for teacher career progression. These pathways provide opportunities for leadership roles, expertise development, and professional growth, all closely linked to continued education and training. Kazakhstan could benefit from adopting a similar model by establishing structured career ladders that align with ongoing professional development.

By adopting these practices from Japan, Singapore, and Canada, Kazakhstan can build a more effective and robust system for teacher professional development. These measures would empower teachers to achieve their full potential and contribute to improved educational outcomes nationwide. Implementing these recommendations would enable Kazakhstan to align its teacher preparation and development strategies with the best practices of high-performing nations, enhancing the quality of its teaching workforce and fostering long-term educational success.

References

Adick, C. (2018). Bereday and Hilker: origins of the ‘four steps of comparison’model. *Comparative Education*, *54*(1), 35-48. http://dx.doi.org/10.1080/03050068.2017.1396088

Admiraal, W., Kittelsen Røberg, K. I., Wiers-Jenssen, J., & Saab, N. (2023). Mind the gap: Early-career teachers’ level of preparedness, professional development, working conditions, and feelings of distress. *Social Psychology of Education*, *26*(6), 1759-1787.

Bautista, A., Wong, J., and Gopinathan, S., 2015. Teacher professional development in Singapore: depicting the landscape. Psychology, society, & education, 7 (3), 311. https://doi.org/10.25115/psye.v7i3

Bayar, A. (2014). The Components of Effective Professional Development Activities in Terms of Teachers' Perspective. International Online Journal of Educational Sciences, *6*(2), 319-327. http://dx.doi.org/10.15345/iojes.2014.02.006

Bereday, G. Z. (1964). Comparative method in education. New York: Holt, Rinehart and Winston Inc. https://archive.org/details/comparativemetho0000bere/page/n21/mode/2up

Bingham, A. J., Dean, S., & Castillo, J. (2019). Qualitative comparative analysis in educational policy research: Procedures, processes, and possibilities. Methodological Innovations, 12(2). http://dx.doi.org/10.1177/2059799119840982

Clandinin, D. J., Long, J., Schaefer, L., Downey, C. A., Steeves, P., Pinnegar, E., McKenzie Robblee, S., & Wnuk, S. (2018). Early career teacher attrition: Intentions of teachers beginning. Teaching Education, 26(1), 1-16. https://doi.org/10.1080/10476210.2014.996746

Darling-Hammond, L., Hyler, M. E., Gardner, M. (2017). Effective Teacher Professional Development. Palo Alto, CA: Learning Policy Institute. https://doi.org/10.54300/122.311.

Doig, B., & Groves, S. (2011). Japanese Lesson Study: Teacher Professional Development through Communities of Inquiry. *Mathematics Teacher Education and Development, 13*, 77-93.

Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. Teaching and Teacher Education, 25(1), 207-216. https://doi.org/10.1016/j.tate.2008.09.001

Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. Review of Educational Research, 81(2), 201-233. https://doi.org/10.3102/0034654311403323

Kutsyuruba, B., Godden, L., & Walker, K. (2024). Teacher Induction Policy Development and Implementation: A Case of Ontario's New Teacher Induction Program (NTIP). *International Journal of Education Policy and Leadership*, *20*(2), 25-pp. https://doi.org/10.22230/ijepl.2024v20n2a1337

Ministry of Education Singapore, 2014. Speeches. Available from: http://www.moe.gov.sg/media/speeches/2014/05/ 26/opening-address-by-mr-heng-swee keat at the 2014 international-association-foreducational assessment conference.php [Accessed 15 Dec 2024]

National Institute for Educational Policy Research, 2013. Teacher training and certificate system. Available from: http://www.nier.go.jp/English/Education InJapan/Education_in_Japan/Education_in_Japan_files/201103TTCS. pdf [Accessed 25 Nov 2017].

National Institute of Education, 2013. Postgraduate diploma in education programmes. Available from: https://www. nie.edu.sg/teacher education/postgraduate diploma-in-education-programmes-pgde/ [Accessed 15 Nov 2017]

Ontario Ministry of Education. (2022). New Teacher Induction Program: Induction elements manual (2021). https://files.ontario.ca/edu-ntip-inductions-manual-en-2022-08-02.pdf [June 12, 2023]

Orakçı, S., 2015. An analysis of teacher education systems of Shangai, Hong Kong, Singapore, Japan and South Korea. Asian journal of instruction, 3 (2), 26-43. https://dergipark.org.tr/en/pub/aji/issue/38889/454208

The Organization for Economic Co-operation and Development, 2016. Teachers matter: attracting, developing and detaining effective teachers. Paris: OECD Publishing. https://doi.org/10.1787/9789264018044-en

The Organization for Economic Co-operation and Development, 2018. What do we know about teachers' selection and professional development in high-performing countries?: PISA in focus. OECD Publishing. [Accessed 4 Jan 2018]. https://doi.org/10.1787/87acdc87-en

Tonga, F. E., Eryiğit, S., Yalçın, F. A., & Erden, F. T. (2022). Professional development of teachers in PISA achiever countries: Finland, Estonia, Japan, Singapore and China. *Professional development in education*, *48*(1), 88-104. http://dx.doi.org/10.1080/19415257.2019.1689521

Van Nuland, S. (2011). Teacher education in Canada. *Journal of Education for Teaching*, *37*(4), 409–421. https://doi.org/10.1080/02607476.2011.611222

Vázquez, A. B., Pérez, L. D., Pacheco, L. C., & Flores, I. R. (2024). Becoming a secondary school teacher: Keys to a meaningful professional identity. *Teaching and Teacher Education*, *148*, 104697. http://dx.doi.org/10.1016/j.tate.2024.104697

Zhang, H., Lyu, X., & Qiu, Y. (2024). Effective Teacher Professional Development and Its Influencing Factors: A Cross-National Comparison of the United States, China, Finland, and Singapore. Journal of Teacher Education, 75(5), 502-515. https://doi.org/10.1177/00224871241254779

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FEATURES OF THE DEVELOPMENT OF RESEARCH COMPETENCE OF FUTURE SPECIAL TEACHERS

Abstract

The article is devoted to the peculiarities of the development of the research competency of future special teachers. Currently, the process of developing the competencies of future special teachers, including research ones, is becoming an urgent problem. Analyzing valuable opinions of scientists, special importance is attached to the definition, meaning of the words "competence", "competency". While competence is closely related to knowledge, abilities, skills, competence is the result of knowledge arising from the activities of students. The purpose of the study: to identify the features of the development of research competence of future special teachers. During the research work, mixed research methods were used: qualitative and quantitative. The study was attended by students of 1-3 courses of the Kazakh National Pedagogical University named after Abai, the educational program "Special Pedagogy". According to the results of the survey, contradictions were revealed in the development of research competencies, in how much they understand research work.

Keywords: competence; competency; research competency, special teacher; research work.

Introduction. In the modern era, the education system is a dynamic and evolving process that continuously adapts to contemporary demands. Effective national policies consistently place education at the forefront, ensuring that citizens become active contributors to societal progress and national development. Consequently, innovative principles, scientific advancements, and groundbreaking ideas in global education are carefully analyzed, critically assessed, and selectively implemented where they offer substantial benefits.

A pivotal milestone in Kazakhstan's education sector has been its integration into the Bologna Process. This reform has established a standardized three-tier system of higher and postgraduate education, encompassing bachelor's, master's, and doctoral programs. The adoption of the Bologna Process necessitates the modernization of various educational components, with a primary focus on enhancing the quality of academic programs through a learning outcomes-based approach. These programs are designed within a competency-based framework that fosters both personal and professional development throughout the educational process (Yerzhanova, 2022).

Within this framework, higher education institutions prioritize the preparation of future professionals who are competitive, highly skilled, and proficient in their respective fields. A crucial aspect of this endeavor is the development of research competence among prospective special education teachers. Consequently, alongside strengthening students' research capabilities, challenges emerge in improving the quality of independent academic work and fostering a deeper engagement with scientific inquiry.

Competence is widely recognized as an essential characteristic of an individual, shaped by the integration of knowledge, skills, and experience. According to Kuzmina (1990) and Markova (1996), competence is a personality trait determined by one's ability to apply acquired knowledge and skills effectively. Raven (2002) emphasized the significance of individual capabilities, while Zeer (2005) viewed competence as a guiding principle in education, linking it to self-learning, self-determination, and socialization.

Turgunbaeva (2012) described competence as the ability to apply knowledge in real-life problem-solving, whereas Yespolova (2021) defined it as the capacity to utilize acquired knowledge and master skills relevant to one's future profession. Research by Akcil, Uzunboylu, and Kinik (2021) explored the role of technology integration in education, emphasizing that the development of research competence is fundamental to any learning process.

Further studies highlight the importance of research competence in teacher preparation. Ramazanova (2022) examined its role in pedagogical disciplines, while Zheksembinova (2017) emphasized academic writing as a key tool in research competence development. Meanwhile, Uzunboylu, Ethemi, and Hamidi (2021) investigated flipped learning methodologies, revealing their effectiveness in fostering research competency. (Uzunboylu et al., 2021).

Abdualiyeva and Seitova (2022) assessed the impact of case-based learning on students' information competence, while Atadjanov (2021) analyzed online thematic discussions as a means of enhancing critical thinking and communication skills. Findings from these studies underscore the multifaceted nature of competence and its critical role in professional training.

Research Aim and Problem Statement

This study aims to explore the development of research competency in future special education teachers. Given the increasing importance of research in higher education, future specialists must cultivate strong research skills to apply theoretical knowledge effectively in professional settings. Research competence fosters scientific inquiry, methodological awareness, and readiness to engage in evidence-based practices. Therefore, understanding its development is crucial in enhancing the quality of higher education.

The Role of Research Competence in Professional Training

To prepare future professionals for the demands of the modern education system, it is essential to integrate research competence into academic training. As noted by Yespolova (2021), students must acquire core competencies such as analytical thinking, problem-solving, teamwork, and research literacy. Mastering these skills enables them to adapt to evolving professional challenges and contribute meaningfully to their field.

Furthermore, research competency aligns with national educational priorities. The Republic of Kazakhstan emphasizes the professional preparedness of special education teachers by ensuring their familiarity with legal and regulatory frameworks. Key legislative documents, including the Constitution of Kazakhstan, the Law on Education (2020), and the Law on Social, Medical, and Pedagogical Support for Children with Disabilities (2010), outline the responsibilities of educators in supporting students with special needs. Additionally, the State Program for the Development of Education and Science (2020–2025) aims to enhance teacher qualifications and reinforce their research competencies (2021).

Materials and Methods. This study employed a mixed-methods research approach, incorporating both qualitative and quantitative data collection techniques. Surveys, including open- and closed-ended questions, were used to gather information from participants. The research methodology involved literature analysis, expert evaluation, content analysis, and statistical assessments. A competency-based approach, grounded in humanistic education principles, served as the foundation for data interpretation.

The research employed a comprehensive range of empirical and theoretical methods to explore the issue at hand. Empirical methods included observation and its various forms, interviews, questionnaires, and experiments, among others. Theoretical methods encompassed analysis, synthesis, analogy, abstraction, comparison, induction and deduction, literature review, generalization, and systematization. To identify the characteristics of developing research competence among students, a survey was conducted. The participants consisted of first- to third-year students enrolled in the "Special Education" program. The survey was administered via the Google Forms platform,

with each question offering five response options. Students selected the answers that best reflected their experiences, thus indicating the level of their research competence.

The collected responses were analyzed using both quantitative and qualitative methods:

- the survey method focused on determining students' research competence;
- quantitative analysis involved converting survey responses into percentages for comparative purposes;
- qualitative analysis entailed examining students' open-ended responses to identify recurring themes and insights.

The results of the survey were presented in the form of diagrams, providing a clear visual representation of the data.

In the course of the study, a survey of students of the educational program "special pedagogy" 1-3 courses on the development of research competence of future special teachers was conducted. During the survey, several questions were considered on the topic under study:

- What do you mean by research?
- What are the signs that you are ready for research work?
- How do you understand writing thesis (projects)?
- What type of essay do you use in doing independent work?
- Know and prepare to write articles for magazines?

Results. According to the results of the survey "What do you mean by research?"students studying under the educational program "Special Pedagogy" 2-3 courses, who took part in the survey, answered the question.

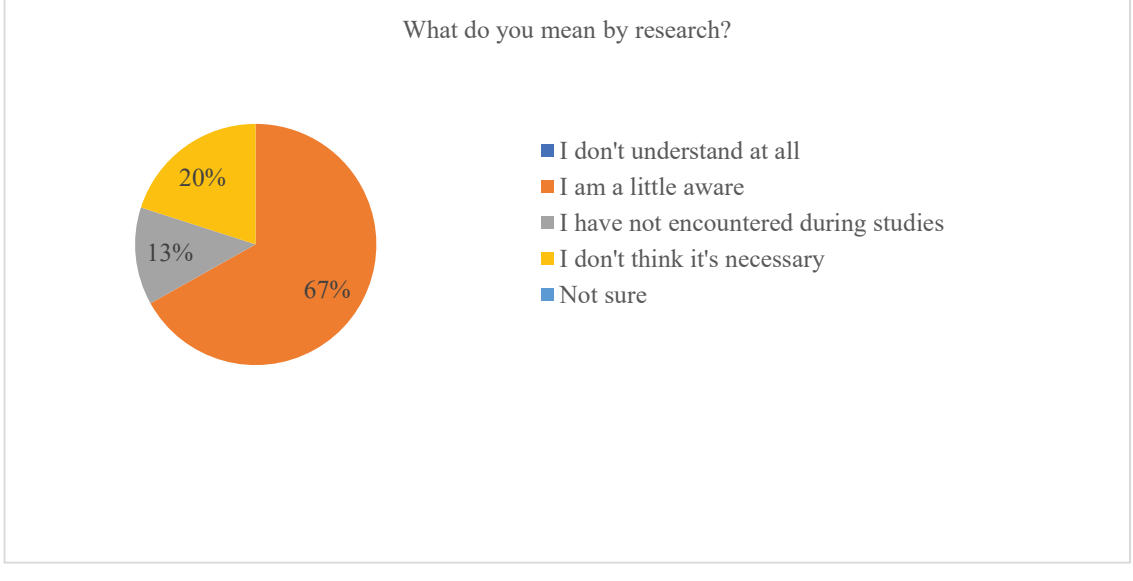

Figure 1: The results of the survey on the question «What do you mean by research?»

Analyzing the results of the survey, we see how the future specialist teacher understands the research work. But not everyone can have this competence. "What do you mean by research? in the questionnaire" I don't understand at all" – there was no answer. The answer" I have a little information "showed 67%, the answer" I have not met in the educational process "-13%, the answer" I don't think it is necessary"-20%, the answer" I have difficulty answering" – There was no answer. From this, we can see that future special teachers have developed an understanding of the research work, and the results of the survey show such a forecast.

According to the results of the survey, the question "What are the signs of your readiness for research work?"future special teachers took part in the survey.

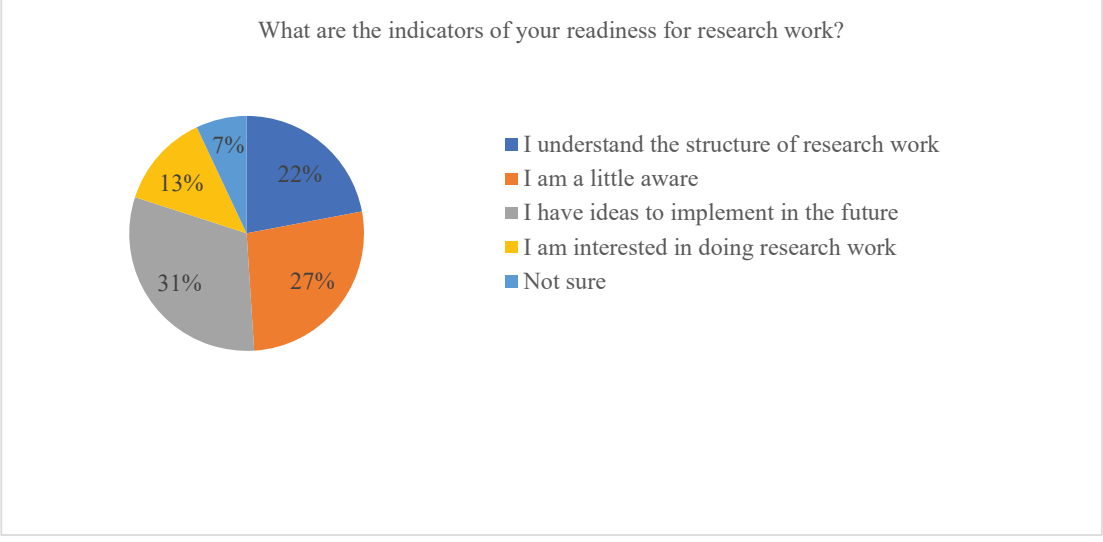

Figure 2: The results of the survey on the question «What are the signs of your readiness for research work?»

"What are the signs that you are ready for research work?"according to the results of the survey, all future special teachers who took part answered. 22% answered" I understand the structure of the research work", 27% answered" I have a little information", 31% were interested in the answer" I have ideas to implement in the future", 13% made a clear choice" I have a great interest in doing research work", 7% still could not clearly express their decision. We can see from this that there are still obstacles to the development of research competency of future special teachers.

"How do you understand writing thesis (projects)?" the results of the survey were conducted.

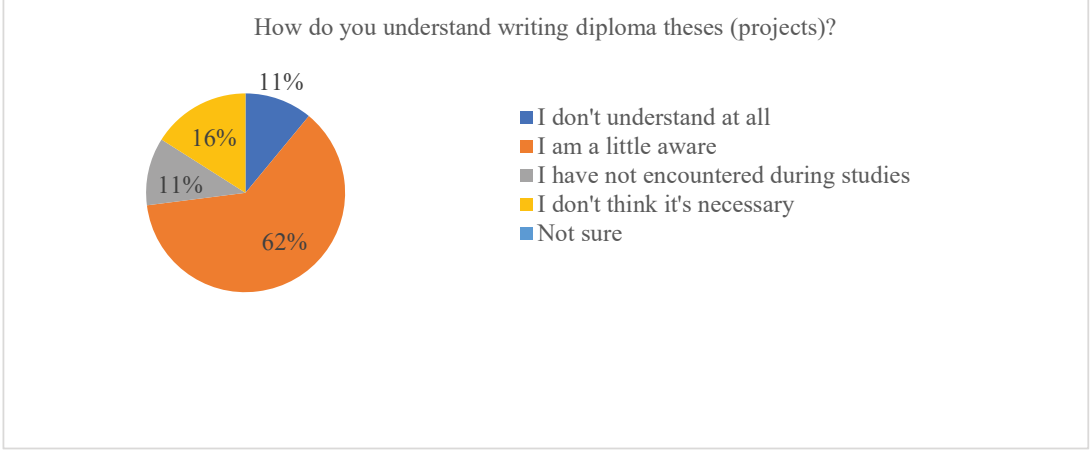

Figure 3: Results of the survey on the question «How do you understand the writing of thesis (projects)?»

On this particular question of the survey, 11% answered" I don't understand at all", 62% answered with a little information, 11% said that they did not meet in the educational process. 16%, I do not think it is necessary to answer, and if we analyze from this, we will see that the student is not able to report on his actions. As a result, future special teachers did not have the answer: "I have difficulty answering". Analyzing this point, we see that everyone has these competencies, but they need to be developed.

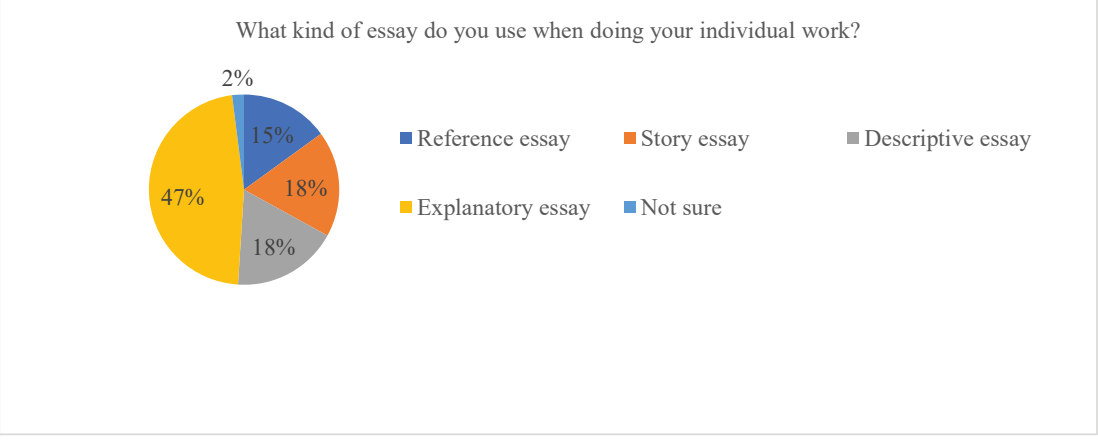

Figure 4: Results of the survey on the question «What type of essay do you use in the implementation of independent work?»

According to the results of the survey, all participants answered the question. 15% gave answers to a reference essay, 18% answered to a story essay, as we see from the results of the survey. 18% gave a descriptive essay answer, the vast majority-47% – gave an explanatory essay answer. In this regard, we are convinced that the competence of writing essays in the performance of independent work among students is not fully developed.

"Do you know and prepare to write articles for magazines?" all future special teachers answered the question of the next survey.

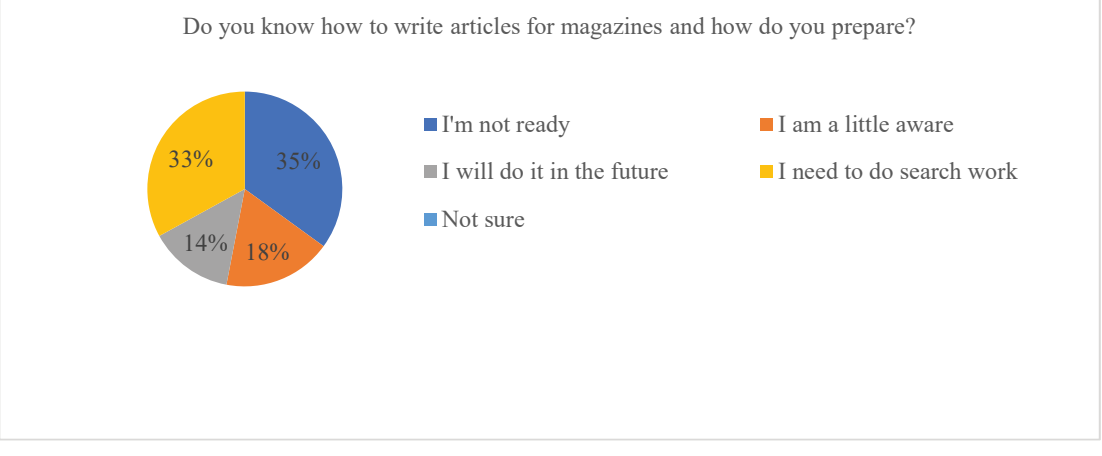

Figure 5: Survey results on the question «Do you know and prepare to write articles for magazines?»

According to figure 5, the main way is to conduct work on determining the interest of future specialists in the question.

According to the results of the survey, all participants answered the question. 35% answered that they were not ready, and 18% said that they had a little information. 14% answered that they will be implemented in the future, and 33% answered that they need search work. «I find it difficult to answer» – there was no answer. From this, we can see that future special teachers have developed an understanding of the research work, and the results of the survey show such a forecast.

At the same time, the analysis of scientific publications on the research topic made it possible to organize the training of future special teachers, which is to instill interest in deeper

study of research work while at the University, in the future to engage in research work.

Discussion. The valuable opinions of the above-mentioned scientists will be evidenced by the works of the conducted research, as well as the opinions expressed. As a result, most first-year students are psychologically unprepared for the new circumstances of their lives. They are not able to adapt to new types of classes, perform certain tasks; as a result, they face difficulties due to a lack of understanding of research competencies.

In our opinion, the development of the research competency of future special teachers is a necessary value in the system of continuing education at the University and contributes to achieving the most complete satisfaction of the needs of students in the field of Education.

Based on the survey results, among the 45 participants, responses to the first question indicated that 30 students 66.7% reported having a limited understanding of the topic, 9 students (20%) considered it unnecessary, and 6 students stated that they had not encountered research in their academic process. Although some participants possessed a general understanding of research, they struggled to provide specific answers.

Regarding the second question, 14 students 31.1% recognized that research would be necessary for their future careers, 12 students reported having a limited understanding of the subject, 10 students 22.2% claimed to comprehend the structure of research work, while 6 students 13.3% expressed a strong interest in engaging with research activities. The remaining participants found it difficult to respond.

When asked, "How do you understand the process of writing thesis projects (dissertations)?" 28 respondents 62.2% indicated they had a limited understanding, while the rest admitted either to having no comprehension or struggling to provide an answer.

These findings underscore the importance of enhancing students' research competencies, emphasizing both theoretical foundations and practical applications, to better prepare them for academic and professional challenges.

In the course of our research, we compared our findings with studies conducted in Australia, Turkiye, Ukraine, and the United States, focusing on similar themes of developing research competencies among future special education teachers.

Davidson, Z. E., & Palermo's (2015) study highlighted that self-acceptance competence showed slight improvements in a specific set of research skills, as well as broader skills such as information gathering and processing, critical thinking, and independent work. Their new research component also received high ratings in student satisfaction surveys. Despite these positive outcomes, students acknowledged the need to further enhance their research skills.

Akcil, U.; Uzunboylu, H.; Kinik, E. (2021) investigated the integration of technology into teaching and learning processes by conducting a qualitative literature review. The study employed a descriptive synthesis model within a literature search method to gather data, shedding light on the current research trends in the field.

The scientific article by Tetiana Fursykova, Olena Habelko, and Valentyna Chernii (2022) substantiated the pedagogical conditions for developing the digital competence of future teachers, emphasizing the creation and maintenance of a digital environment within higher education institutions, the activation of students' independent cognitive activities through information and communication technologies, and the incorporation of innovative strategies and technologies for enhancing digital competence in distance learning.

Marta Montenegro Rueda and José María Fernández Batanero (2022) focused on the digital training of teachers, particularly special education teachers, as a central axis for transforming the quality of education. Their study provided a systematic review of literature across four databases (Scopus, ERIC, Dialnet, and Web of Science), analyzing 25 studies. The results were categorized based on study characteristics (publication year, country of origin, methodological approach) and conceptual network analysis.

Biggs, E. E., Gilson, C. B., & Carter, E. W. (2019) conducted research at the University

of Illinois at Urbana-Champaign, emphasizing the importance of paraprofessionals in educating students with disabilities and the crucial role of special education teachers in supervising and supporting paraprofessionals. The authors carried out in-depth interviews with 22 participants, including teachers and paraprofessionals, to identify the key competencies necessary for effective collaboration and their recommendations for improving this collaboration.

While these studies provide valuable insights into the development of research and digital competencies among future teachers and special educators, they do not specifically address the development of research competencies among future special education teachers. Notably, the issue of fostering research competencies in future special education teachers remains an underexplored area.

Our research stands out by focusing on defining the research competencies of special education teachers and developing a specialized course titled "Developing Research Competencies of Special Education Teachers." This course is designed to systematically cultivate research skills through lectures, seminars, practical tasks, and project-based work, ensuring a comprehensive approach to professional preparation.

These findings hold significant academic value and can be effectively utilized in higher education institutions to enhance the process of developing research competencies among future special education teachers.

Conclusion. In conclusion, we can say that there are almost no opinions about the features of the development of research competency of future special teachers. First of all, there is a need to develop students ' competencies, providing them with useful information for engaging in scientific work. During the survey, several questions were considered within the framework of the topic under study: "what do you mean by research?", "What are the signs of your readiness for research work?", "How do you understand writing thesis (projects)?", "What type of essay do you use in doing independent work?", "Do you know and prepare to write articles for magazines?». By asking these problematic questions, we learned about their views on research work and it is important to develop their interest in research work since entering a university. There are no difficulties in writing diploma projects, research projects, projects conducted among young scientists, if the entire discipline studied from the date of crossing the university is given due to the peculiarities of the development of research competence of students. After all, each semester should have its own scope of research, purpose, indicators and complexes that arouse interest in science.

At the same time, it is obvious that the development of research competencies by future special teachers through scientific and independent work will also improve the quality, but the understanding of each task will also affect the development of competencies. In our opinion, it is necessary to make the right decision and link the continuity in the implementation of scientific work by carefully analyzing the effective aspects of the features of the development of research competence of future special teachers. Developing research competence is a critical aspect of teacher preparation, particularly for future special education professionals. Despite ongoing educational reforms and policy initiatives in Kazakhstan, challenges remain in fostering students' research abilities. Addressing these gaps requires a comprehensive approach that integrates research training into the curriculum, enhances independent learning opportunities, and supports students in acquiring the skills necessary for academic and professional success. By overcoming existing barriers, higher education institutions can ensure that graduates are well-equipped to contribute effectively to the evolving educational landscape.

References

Abdualiyeva, R., Seitova, S., Tasbolatova, R., & Smagulova, L. (2022). Methodology of application of case technology in the process of teaching mathematics. *Cypriot Journal of Educational Science. 17(9),* 3545-3555. https://doi.org/10.18844/cjes.v17i9.8119

Akcil, U.; Uzunboylu, H.; Kinik, E. (2021). Integration of Technology to Learning-Teaching Processes and Google Workspace Tools: A Literature Review. *Sustainability, 13*, 5018. https://doi.org/10.3390/su13095018

Atadjanov K. (2021). Developing the pedagogical competence of future teachers using web-based technologies in self-study. *ACADEMICIA: An International Multidisciplinary Research Journal*. 11 (11), 306-310. DOI: 10.5958/2249-7137.2021.02454.X

Biggs, E. E., Gilson, C. B., & Carter, E. W. (2019). "Developing that balance": Preparing and supporting special education teachers to work with paraprofessionals. *Teacher Education and Special Education*, *42*(2), 117-131. https://doi.org/10.1177/0888406418765611

Davidson, Z. E., & Palermo, C. (2015). Developing research competence in undergraduate students through hands on learning. *Journal of Biomedical Education*, *2015*(1), 306380. https://doi.org/10.1155/2015/306380

Fursykova, T., Habelko, O., & Chernii, V. (2022). The development of digital competence of future teachers in the process of distance learning. *International Journal of Emerging Technologies in Learning (iJET)*, *17*(10), 85-98. https://doi.org/10.3991/ijet.v17i10.28973

Kuzmina N. (1990). Profesionalizm lichnosti prepodavatelä i mastera proizvodstvennogo obuchenia [Professionalism of the personality of the teacher and the master of industrial training]. M.: Vysş. Şk, 26-32. https://rusneb.ru/catalog/000200_000018_rc_303155/ [in Russian]

Montenegro-Rueda, M., & Fernández-Batanero, J. M. (2022). Digital competence of special education teachers: impact, challenges and opportunities. *Australasian Journal of Special and Inclusive Education*, *46*(2), 178-192. DOI: https://doi.org/10.1017/jsi.2022.8

Markova, A.K. (1996). Psihologiya professionalizma [Psychology of professionalism]. Mezhdunarodnyj gumanitarnyj fond «Znanie», 30-38. https://p-lib.ru/pedagogika/markova-psihologiya-professionalizma/index.html [in Russian]

«Mümkındıgı şekteulı balalardy äleumettık jäne medisinalyq-pedagogikalyq tüzeu arqyly qoldau turaly» ["On social and medical-pedagogical Correctional support for children with disabilities"] Qazaqstan Respublikasynyñ Zañy [Elektrondy resurs] //adilet.zan.kz. https:// adilet.zan.kz/ (jügıngen künı/data obraşenia/ accessed: 26.06.2021).

Qazaqstan Respublikasynda bılım berudı jäne ğylymdy damytudyñ 2020 – 2025 jyldarğa arnalğan memlekettık bağdarlamasy [State program for the development of education and science in the Republic of Kazakhstan for 2020-2025] https://adilet.zan.kz/kaz/docs/P1900000988

Qazaqstan Respublikasynyñ «Bılım turaly» Zañy (07.07.2020 jylğy jağdai boiynşa özgerıster men tolyqtyrularmen) [Law of the Republic of Kazakhstan "On Education"] (with amendments and additions as of 07.07.2020)//adilet.zan.kz.

«Qazaqstan Respublikasyndağy bala qūqyqtary turaly» Qazaqstan Respublikasynyñ 2002 jylğy 8 tamyzdağy №345-II Zañy [Law of the Republic of Kazakhstan dated August 8, 2002 No. 345-II" on the rights of the child in the Republic of Kazakhstan"] adilet.zan.kz. https://adilet.zan.kz/kaz/docs/Z020000345

Raven J. (2002). Kompetentnöst v sovremennom obşestve. Vyiavlenie, razvitie i realizasia [Competence in modern society. Identification, development and implementation] J.Raven. – M., Kogito-sentr, 23-28. https://www.litres.ru/book/dzhon-raven/kompetentnost-v-sovremennom-obschestve-vyyavlenie-razvitie-i-r-180004/ [in Russian]

Ramazanova A. (2022). Biotehnologialyq ädısterı negızında studentterdıñ zertteuşılık qūzyrettılıgın qalyptastyru [Formation of research competence of students on the basis of biotechnological methods] filosofia dok. (PhD). dis.: 6D011300. – Almaty «Qazaqlttyq ūlttyq qyzdar pedagogikalyq universitetı» Ke AQ, 44-51. https://rep.ksu.kz/handle/data/9227?show=full [in Kazakh]

Turgunbayeva B. (2012). Bolashaқ mұғalimderdiң әleuetin damytu: kәsibi shyғarmashylyқ zholynda [Development of the potential of future teachers: on the path of professional creativity] Almaty: polygraphy-service STR, 31-37. https://www.vestnik-asu.kz/jour/article/view/661 [in Kazakh]

Uzunboylu, H., Ethemi, B. P., & Hamidi, M. (2021). Content analysis of research papers on flipped learning. Revista de Educación a Distancia (RED), 21(66). https://doi.org/10.6018/red.451551

Yerzhanova D. Zh. (2022). Bılım beru jüiesında Dublindık deskriptordy jüzege asyrudyñ psihologialyq-pedagogikalyq talaptary [Psychological and pedagogical requirements for the implementation of the Dublin descriptor in the education system]. Taldyqorğan: «Ilias Jansügırov atyndağy Jetısu universitetı» Ke AQ, 114-118. https://zhetysu.edu.kz/ [in Kazakh]

Yespolova G. (2021). Jañartylğan bılım beru mazmūnynda bastauyş synyp oquşylarynyñ zertteuşılık qūzyrettılıgın qalyptastyru [Formation of research competence of Primary School students in the updated content of education] filosofia dok. (PhD). dis.: 6D010200. – Taldyqorğan: «Ilias Jansügırov atyndağy Jetısu universitetı» Ke AQ, 16-28. https://www.calameo.com/books/0061072748c6c821b86a9 [in Kazakh]

Zeer E. (2005). Kompetentnostnyi podhod k modernizasii obrazovania [Competence-based approach to the modernization of education] Vysşee obrazovanie v Rosii. 4, 23-30. https://cyberleninka.ru/article/n/modernizatsiya-professionalnogo-obrazovaniya-kompetentnostnyy-podhod [in Russian]

Zheksembinova A. (2017). Universitettık bılım beru jüiesında bolaşaq äleumettık pedagogtardyñ zertteuşılık qūzyrettılıgın qalyptastyru [Formation of research competence of future social teachers in the system of university education] filosofia dok. (PhD). dis.: 6D012300. – Almaty: «Äl-Farabi atyndağy qazaq ūlttyq universitetı», 28-32. https://nabrk.kz/kk/e-catalog?catalog=4&publication_type=16&country_edition=KZ&page=83 [in Kazakh]

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SCIENTIFIC-PEDAGOGICAL THEORIES OF IMPROVING PHYSICAL EDUCATION FOR UNIVERSITY STUDENTS

Abstract

In modern conditions, the problem of improving physical education of university students acquires special relevance in the higher education system. This research is devoted to the analysis of scientific and pedagogical theories aimed at improving physical education of university students. The research work is based on theoretical methods, including analysis of scientific literature, comparative analysis, classification, and synthesis of theoretical concepts. The study examines key international theories (Physical Literacy, Self-Determination Theory, Social Ecological Model, and others) and concepts common in Kazakhstan (Theory of Personal Physical Culture, Theory of Adaptive Physical Education, Theory of Sports-Oriented Physical Education, and others). The analysis aims to identify conceptual foundations, philosophical and ideological differences, target guidelines, methodological approaches, implementation principles, and expected results of the theories under consideration. The study examines in detail the differences in practical application of theoretical approaches, their philosophical and cultural foundations, and development prospects. SWOT analysis of the theories made it possible to determine strategic directions for their possible synthesis to improve the system of physical education for students. Based on the analysis, promising directions for integrating progressive elements of international experience into the context of the national physical education system are formulated, taking into account educational traditions and socio-economic realities.

Keywords: Physical education of students, improvement of physical education, theories of physical education.

Introduction. Modern globalization trends in the educational space of physical education bring to the forefront the need to integrate international theoretical and methodological approaches with national traditions and the specifics of educational systems. The problem of selective borrowing of progressive elements from international experience while preserving the national specificity of the pedagogical paradigm in the Republic of Kazakhstan is particularly relevant. In the context of forming updated educational content, critical understanding and adaptation of foreign concepts becomes a strategic resource for improving the existing physical education system.

Domestic scientists Tanikeev M.T., Kulnazarov A.K., Zakiryanov K.K., Doskaraev B.M., Khaustov S.I., Andrushchishin I.F., Kudashova L.R., Adambekov K.I., and Mukhiddinov E.M. have made significant contributions to the development of theoretical and methodological foundations of physical education, taking into account the national-cultural and regional characteristics of Kazakhstan. However, the dynamically changing sociocultural situation, increasing hypodynamia among young people, challenges of digitalization, and transformation of value orientations require new approaches to forming personal physical culture. According to epidemiological data, there is a stable negative trend in the health indicators of the student population. Longitudinal studies demonstrate that more than 60% of students manifest various functional and organic disorders of somatic status, and the number of students belonging to special medical groups increases annually by 3-5% (Keating et al., 2005). Of particular concern is the progressive prevalence of pathologies of the musculoskeletal system, cardiovascular dysfunctions, and visual analyzer disorders.

Analysis of the lifestyle of modern students reveals a pronounced hypokinetic syndrome determined by prolonged interaction with electronic devices, intensification of academic workload, and expansion of distance educational technologies. Empirical data indicate that the deficit of physical activity among students reaches 30-40% of physiologically justified standards, which induces negative shifts in physical development and functional reserves of the body (Buckworth & Nigg, 2004). According to a global meta-analysis conducted by Guthold et al. (2018), insufficient physical activity is observed in 27.5% of the world's population, with indicators among university students demonstrating an even more pronounced negative dynamic.

The existing paradigm of physical education in higher educational institutions demonstrates dissonance with current social demands and educational trends. Formalized pedagogical practices, deficit of personalized approach to physical load dosing, insufficient correlation of curriculum content with professional competencies, and low level of internal motivation among students significantly reduce the effectiveness of conventional forms of physical education (Cardinal et al., 2012).

The current labor market situation articulates increased requirements not only for professional competencies of graduates but also for their psychophysical potential, work capacity, and stress resistance. Research shows that physical fitness is a significant predictor of professional success across a wide spectrum of fields, with economic losses from insufficient physical activity of the population globally estimated at $67.5 billion (Ding et al., 2016). Consequently, physical education should ensure the formation of relevant qualities in accordance with the specifics of future professional activities of specialists in various profiles.

The exponential development of information and communication technologies generates both new challenges associated with prolonged periods of hypokinesia and innovative opportunities for optimizing physical education. Integration of mobile applications and wearable devices into physical education programs contributes to increasing student engagement and educational process effectiveness, which is confirmed by the results of numerous intervention studies (Plotnikoff et al., 2015).

Transformation of axiological orientations in the modern student population requires reconceptualization of physical education content and forms. Currently, it is imperative not only to ensure adequate physical development but also to form a stable motivational dominant for health-preserving behavior and systematic physical activity throughout the life cycle. According to research by Bauman et al. (2012), key determinants of physical activity include not only the availability of sports infrastructure but also psychosocial factors, including self-efficacy, social support, and intrinsic motivation.

The COVID-19 pandemic explicated the critical importance of high-level physical health as a factor of immunological resistance, while accompanying restrictive measures emphasized the need to develop innovative forms of physical education organization in conditions of

distance learning and self-isolation. Multicenter studies demonstrate that students with regular physical activity showed higher indicators of psychological resilience during the period of pandemic restrictions (Cocca et al., 2014).

Integration into the global educational space in the context of the Bologna Process actualizes the need to harmonize methodological approaches to physical education, taking into account international benchmarks and standards while preserving national pedagogical traditions and advantages of the autochthonous physical education system. Cross-cultural analysis conducted by Haase et al. (2004) revealed significant differences in physical activity patterns among students from 23 countries, which is determined by both sociocultural factors and peculiarities of national education systems.

Thus, a significant factor determining the relevance of this research is the insufficient development of methodological foundations for effective synthesis of international and national concepts of physical education to improve physical education of students in the higher education system.

Research Questions:

1. Which modern scientific and pedagogical theories can be effectively integrated into the university students' physical education system to improve its quality and adaptation to modern educational and social requirements?

2. What are the common features and key differences of modern international scientific and pedagogical theories for improving physical education of students in universities?

Materials and Methods. The research began with the collection and analysis of sources, during which international scientific literature, articles, and monographs devoted to modern theories of physical education were studied. The next stage involved systematization of theories, including their classification according to key criteria such as goals, methods, principles, and expected results. Further, a comparative analysis was conducted, aimed at identifying common features and differences between theories based on the selected criteria. The final stage is synthesis and formulation of conclusions, where the results of the analysis are summarized and recommendations on possibilities for integrating theories into the national system of physical education for university students are proposed.

For the implementation of these stages, the following theoretical research methods were used:

- analysis of scientific literature (systematic review) to identify modern theories;
- comparative analysis to determine common features and differences between theories;
- classification and systematization of theories according to key parameters;
- synthesis to summarize the results of the analysis and formulate conclusions.

Results. The literature analysis allowed us to demonstrate modern physical education programs that provide a scientifically based approach to improving physical education of students (Table 1).

Table 1. *International Theories of Physical Education*

Theory	Authors	Main Idea
Physical Literacy	Margaret Whitehead	Defines physical literacy as motivation, confidence, physical competence, knowledge, and understanding of the value of physical activity Aimed at developing the ability and desire to lead an active lifestyle throughout life Used as a foundation for developing physical education programs in Canada, the United Kingdom, and Australia
Self-Determination Theory	Edward Deci, Richard Ryan	Identifies three basic psychological needs: autonomy, competence, and relatedness Explains motivational mechanisms of physical activity Applied to develop programs that enhance intrinsic motivation for physical activity

Social Ecological Model	Brian Sutton James Sallis	Considers physical activity as a result of the interaction between individual, social, organizational, community, and political factors Serves as a foundation for multi-level programs promoting physical activity Widely used by WHO in international recommendations on physical activity
Theory of Planned Behavior	Icek Ajzen	Explains the relationship between attitudes, intentions, and behavior in the context of physical activity Used to predict and change behavior related to physical activity Applied in developing intervention programs at universities in many countries
Long-Term Athlete Development Model	Istvan Balyi, Richard Way	Defines stages of long-term development of physical qualities and skills Emphasizes the importance of matching physical activity to age and individual characteristics Used as a foundation for sports programs and physical education in Canada, Australia, and the United Kingdom
Physical Capital Theory	Pierre Bourdieu	Considers physical qualities and skills as a form of capital Explains social and cultural aspects of physical education Used to understand social inequality in access to physical education
Salutogenic Model	Aaron Antonovsky	Focuses on factors that promote health rather than disease prevention Introduces the concept of «sense of coherence» as a key factor for health Applied in programs aimed at forming a sustainable attitude toward physical activity
Active Learning Theory	Bonwell & Eison	Emphasizes the importance of active participation in the process of learning physical culture Promotes problem-oriented and experiential learning Widely applied in modern physical education programs

In Kazakhstan, different conceptual theories form the theoretical and methodological foundation for developing modern methods and technologies to improve physical education of students in higher educational institutions (Table 2).

Table 2. *Local Theories of Physical Education*

Theory	Authors	Main Idea
Theory of Personal Physical Culture	L.I. Lubysheva, V.K. Balsevich	Based on the idea of forming physical culture as an integral component of the general culture of the individual. Physical education should provide not only physical development but also the formation of values and motives for physical culture activities The educational process is aimed at integrating physical and spiritual development The goal is self-determination of the individual in the sphere of physical culture
Theory of Adaptive Physical Education	S.P. Evseev	Considers physical education as a process of adapting the organism to changing conditions. Takes into account individual adaptation capabilities of students Creates adaptation models of physical loads Physical education is aimed at increasing the adaptive potential of the organism

Theory of Sports-Oriented Physical Education	V.K. Balsevich, L.I. Lubysheva	Based on the integration of sports and educational activities. Uses conversion of sports training technologies Creates sports-oriented departments of physical education Forms a sports lifestyle as the basis for health preservation
Theory of Physical Activity	M.Ya. Vilensky	Considers physical activity as a key factor in health and physical development. Wholeness of the physical activity phenomenon in the unity of its motivational, organizational, and effective aspects Structuring physical education programs based on the necessary and sufficient volume of physical activity Emphasis on forming the habit of regular physical activity
Theory of Physical Education	P.F. Lesgaft	Considers physical education as an educational process. Physical education as a system of knowledge, abilities, and skills in the field of physical culture Formation of the intellectual component of physical culture Interconnection between physical and mental education
Conceptual Theory of Kinesiological Potential	V.K. Balsevich	Based on understanding the age development of human motor capabilities. Takes into account sensitive periods in the development of motor abilities Optimizes motor activity considering biological age Forms kinesiological competence in students
Theory of Pedagogy of Physical Culture	Yu.F. Kuramshin	Integrates pedagogical patterns and specifics of physical culture activities. Patterns of forming physical qualities and motor skills Principles of building physical education Methods and technologies of physical improvement in the system of pedagogical influence
Theory of Physical Culture and Sports Environment	S.I. Filimonova	Examines the influence of the educational environment on the effectiveness of physical education. Creating optimal infrastructure for physical education Forming a value-oriented physical culture environment in the university Integration of various environmental components for maximum physical education effect

The Theory of Personal Physical Culture developed by L.I. Lubysheva and V.K. Balsevich is based on the concept of physical culture as an integral part of a person's general culture. It centers on holistic human development, including not only physical improvement but also the formation of value orientations, awareness of physical activity significance, and its integration into daily life. An important aspect of this theory is the connection between physical culture and general cultural processes and spiritual development, which contributes to conscious self-determination in this field (Lubysheva, 2017; Balsevich, 2006).

The Theory of Adaptive Physical Education, developed by S.P. Evseev, views physical education as a process that increases the body's resistance to changing environmental conditions. This theory considers individual characteristics of students, their physical and physiological capabilities, offering adaptive models of physical loads aimed at increasing the body's functional reserves. Within this concept, special attention is paid to rehabilitation and corrective aspects of physical education, making it relevant for various categories of students, including persons with disabilities (Evseev, 2016).

The Theory of Sports-Oriented Physical Education, proposed by V.K. Balsevich and L.I. Lubysheva, is based on the integration of sports and educational practices. It involves the introduction of professional sports training methods into the physical education system, which helps increase motor activity and strengthen students' health. The main directions of this concept include creating specialized departments of physical education, developing sports infrastructure in educational institutions, and popularizing a sports lifestyle as an integral element of health preservation (Balsevich & Lubysheva, 2003).

The Theory of Physical Activity, developed by M.Ya. Vilensky, emphasizes the importance of physical activity as the main factor in health promotion and comprehensive physical development. Within this theory, physical activity is considered in the unity of its motivational, organizational, and effective aspects. An important place is given to substantiating the optimal volume and intensity of physical loads that provide the necessary level of motor activity. The theory emphasizes the formation of stable habits for systematic physical culture and sports activities as a means of disease prevention and quality of life improvement (Vilensky & Gorshkov, 2016).

The Theory of Physical Education, established by P.F. Lesgaft and developed by modern scientists, interprets physical education as an educational process aimed at forming a system of knowledge, abilities, and skills in the field of physical culture. Special attention is paid to developing the intellectual component of physical culture, the interconnection of physical and cognitive processes, and the application of scientifically based methods of physical education. Within this concept, physical education is considered an important element of the general educational system that contributes to harmonious personality development (Lesgaft, 1951/1892; Bailey et al., 2009).

The Conceptual Theory of Kinesiological Potential, developed by V.K. Balsevich, is based on studying age patterns of human motor development. It is founded on the concept of sensitive periods in the development of motor abilities and the necessity of their optimal use in the educational process. Important directions of this theory include considering biological age when planning physical activity, improving methods of motor training, and developing kinesiological competence in students, which allows them to consciously manage their physical condition and level of motor activity (Balsevich, 2009).

The Theory of Physical Culture Pedagogy, proposed by Yu.F. Kuramshin, integrates pedagogical patterns and features of physical culture activities. It reveals the mechanisms of forming physical qualities and motor skills, principles of building the educational process in physical culture, as well as modern methods and technologies for physical improvement. Special attention is paid to the didactic foundations of physical education, application of innovative teaching methods, and improvement of educational programs considering individual characteristics of students (Kuramshin, 2010; Green, 2014).

The Theory of Physical Culture and Sports Environment, developed by S.I. Filimonova, examines the influence of the educational environment on the effectiveness of physical education. It is based on creating favorable conditions for physical culture activities, forming a value-oriented physical culture environment in educational institutions, and integrating various components of the educational space to increase the effectiveness of physical education. This concept emphasizes the development of sports infrastructure, the use of modern technologies in physical education, and the formation of a healthy lifestyle culture among students (Filimonova, 2012; Hardman & Marshall, 2005).

Comparative analysis aims to identify common features and differences between international and physical education theories common in Kazakhstan (hereinafter referred to as local) according to criteria: conceptual foundations and ideological differences, goals, methodological approaches, implementation principles, expected results, practical application, philosophical and cultural foundations, and prospects for synthesis and development.

Conceptual foundations and ideological differences

Analyzing the presented theories, it can be noted that international concepts are predominantly based on psychological and sociological foundations, viewing physical education through the prism of individual motivation and social interactions. They emphasize behavioral aspects and internal stimuli for physical activity. Local approaches, on the contrary, have a more pronounced pedagogical character, where physical education is integrated into a holistic educational system. Here, the influence of the Soviet school of physical education with its systematic nature and methodological elaboration is evident.

Goals of Theories

International concepts aim to form a sustainable attitude towards physical activity based on internal psychological mechanisms. They emphasize the development of motivational autonomy, when a person independently and consciously chooses an active lifestyle. An important aspect is the formation of positive emotional experiences associated with physical activity, which becomes the basis for long-term commitment to a healthy lifestyle. In Kazakhstani approaches, there is a desire for harmonious personality development, where physical improvement is part of general cultural formation. Physical education is not viewed as an isolated process of developing physicality, but as a component of holistic human education. The emphasis is on forming a system of knowledge and values related to physical culture, which become part of a person's worldview.

Methodological Approaches

In global concepts, ecological and systemic approaches predominate, taking into account the interaction of various factors: from individual psychological characteristics to social policy. The methodology of international theories often relies on interdisciplinary research, integrating achievements in psychology, sociology, medicine, and pedagogy. A characteristic feature is the orientation toward an evidence base and empirical verifiability of theoretical positions. Local concepts are distinguished by a more clearly structured pedagogical process. The methodology here is based on age-related patterns of motor quality development, principles of gradual progression and systematic loads. Considerable attention is paid to creating an optimal educational environment conducive to physical improvement. The use of adapted sports technologies in the educational process is characteristic.

Implementation Principles

Global approaches are implemented on principles of individualization, accounting for personal characteristics and preferences. An important principle is creating a supportive social environment that promotes physical activity. A distinctive feature is the ecological principle, taking into account human interaction with various environments: from immediate surroundings to public institutions. In national concepts, principles of systematicity, adaptability, and integration of physical education into the general educational process are highlighted. The principle of variability is characteristic, allowing for individual characteristics of participants within a unified methodological system. Of particular importance is the principle of educational orientation of physical education, implying the mastery not only of motor skills but also of corresponding knowledge.

Expected Results

Global concepts are oriented toward forming long-term commitment to physical activity, developing the ability to independently plan and implement physical culture activities throughout life. The expected result is not only improvement of physical indicators but also enhancement of quality of life, psychological well-being, and formation of social connections through physical activity. National approaches aim at forming a holistic physical culture of the individual, integrating sports and educational components into a unified system of self-realization. Expected results include development of competence in the field of physical culture, formation of a value-based attitude toward one's body and health, as well as creating prerequisites for professional self-determination in the sports sphere.

Practical Application

Global concepts are implemented primarily through creating multi-level programs covering various aspects of life activity. They often go beyond formal education, encompassing family environment, local communities, and social policy. Characteristic is the use of motivational interventions, creation of a supportive social environment, and consideration of psychological aspects of physical activity. National approaches are implemented mainly within the formal educational system, through structured physical education programs. Practical application is distinguished by systematicity and methodological elaboration, mandatory inclusion of an educational component. There is a noticeable tendency to use elements of sports training in the educational process, as well as creating a specialized physical culture and sports environment.

Philosophical and Cultural Foundations

Global concepts reflect Western philosophical traditions with their emphasis on individual freedom, autonomy, and right of choice. They are often based on humanistic psychology, emphasizing the importance of personal growth and self-realization. The cultural context of these theories is connected with individualistic societies, where personal initiative and responsibility are especially highly valued. National approaches have been formed under the influence of both the Soviet pedagogical school and traditional cultural values. Their philosophical foundation includes ideas of collectivism, unity of physical and spiritual development, and harmony of humans with the surrounding world. The cultural context of these theories is connected with concepts of personality wholeness, where physical improvement is an integral component of general development.

Prospects for Synthesis and Development

Analysis shows that the most promising direction for the development of physical education theories is the synthesis of international and national approaches. Integration of psychological aspects of motivation and autonomy with systematic pedagogical influence can create more effective models of physical education. Local theories could be enriched by a deeper understanding of psychological mechanisms of motivation and socio-ecological factors influencing physical activity.

SWOT analysis of international and local theories of physical education allowed for creating a holistic system of physical education that responds to both global trends and national traditions, contributing to the improvement of physical education, and therefore to the formation of a physically active, healthy, and harmoniously developed personality (Table 3).

Table 3. *SWOT Analysis of International and Local Theories of Physical Education*

International Theories

Strengths	Weaknesses
Reliance on Interdisciplinary Research	Insufficient Structuring of the Pedagogical Process
Emphasis on Forming Internal Motivation and Autonomy	Less Attention to the Educational Component
Consideration of Multi-Level Socio-Ecological Factors	Weak Integration into the Holistic Education System
Evidence-Based Approach and Empirical Verifiability	Insufficient Consideration of Cultural Characteristics
Orientation Towards Long-Term Commitment to Physical Activity	Limited Attention to Methodological Aspects
Transcending Formal Education Boundaries	Difficulty of Implementation with Inadequate Resource Support

Opportunities	Threats
Expanding Understanding of Psychological Motivation Mechanisms	Complexity of Adaptation to Different Cultural Contexts
Development of Multi-Level Programs	Risk of Formal Approach Without Considering Specific Conditions
Strengthening the Connection Between Physical Activity and Well-being	Potential Contradiction with Traditional Systems
Expanding the Evidence Base of Effectiveness	Difficulties in Assessing Long-Term Results
Development of Innovative Assessment Methods	Possibility of Non-Acceptance in Collectivist Societies
Formation of Global Physical Literacy Standards	Dependence on External Resources and Support

Local Theories

Strengths	Weaknesses
Systematic and Methodological Elaboration	Insufficient Attention to Psychological Aspects of Motivation
Integration into the Holistic Educational System	Limited Consideration of Socio-Ecological Factors
Formation of Physical Culture as Part of General Culture	Less Reliance on Evidence Base and Empirical Research
Consideration of Age-Related Patterns of Motor Skills Development	Insufficient Flexibility in Accounting for Individual Preferences
Clear Structuring of the Pedagogical Process	Focus Primarily on Formal Education
Combination of Sports and Educational Components	Limited Understanding of Long-Term Commitment Factors

Opportunities	Threats
Enrichment of Theoretical Base with International Research	Obsolescence of Methodological Base Without Timely Update
Development Considering Psychological Motivation Factors	Lagging Behind Global Trends
Expanding Methodology Through Interdisciplinary Approach	Risk of Formalization Without Considering Personal Meaning
Strengthening the Connection Between Educational and Motivational Components	Decreased Effectiveness with Changing Social Realities
Transcending Formal System While Maintaining Methodological Foundation	Difficulty Adapting to New Technological Conditions
Creating Innovative Models Based on Synthesis of Traditions	Competition with More Flexible Approaches

Strategic Directions of Synthesis

SO Strategy (Strengths + Opportunities)	WO Strategy (Weaknesses + Opportunities)
Integration of Systematic Pedagogical Approach with Psychological Motivation Mechanisms	Strengthening the Psychological Component in National Theories
Creating an Evidence Base for the Effectiveness of Traditional Methods	Expanding the Methodological Base of International Concepts

Developing the Concept of Physical Culture Considering Autonomy	Developing the Educational Component in International Approaches
Enriching the Pedagogical Process with a Socio-Ecological Approach	Enhancing the Evidence Base in National Concepts

ST Strategy (Strengths + Threats)	**WT Strategy (Weaknesses + Threats)**
Adaptation of International Approaches to Various Cultural Contexts	Overcoming Formalism Through Enhancing Personal Significance
Updating the Methodological Base While Maintaining Systematicity	Creating Culturally-Adapted Motivation Models
Developing Flexible Forms of Implementing Structured Approaches	Developing Evidence-Based Approach in Various Cultural Contexts
Enhancing Personal Meaning in the Systematic Pedagogical Process	Forming Innovative Methods of Effectiveness Assessment

Discussion. Analysis of strategic directions for synthesizing international and local theories of physical education allows for determining key aspects that are expedient to implement in the educational paradigm for its optimization and modernization. Modern trends in the globalization of educational space determine the need for selective borrowing of progressive elements from international experience while preserving the national specificity of the pedagogical system (Hardman & Marshall, 2005; Sallis & McKenzie, 1991; Pengpid et al., 2015).

The national system of physical education needs to integrate psychological aspects of the motivational sphere presented in international concepts. In particular, it is necessary to implement provisions of the Self-Determination Theory, which emphasizes the formation of internal motivation through satisfying basic psychological needs for autonomy, competence, and social connectedness, allowing to overcome the formalism and directiveness of the traditional approach, transforming it into a person-oriented model where the student acts as an active subject rather than a passive object of pedagogical influence (Deliens et al., 2015; Haase et al., 2004; Buckworth & Nigg, 2004).

A significant resource for improving the national system of physical education is the social-ecological approach, which views physical activity as a result of interaction between multi-level factors: individual, interpersonal, institutional, social, and political. Integration of this approach will expand the range of influence of pedagogical strategies beyond the formal educational system, involving a wide spectrum of social determinants of physical activity and creating a favorable ecosystem for its maintenance (Bauman et al., 2012; Ding et al., 2016; Cocca et al., 2014).

A promising direction is strengthening the evidence base for the effectiveness of applied methods and technologies. The local education system should adapt the methodology of empirical verification characteristic of international approaches, which involves systematic qualimetric research, validation of diagnostic tools, and implementation of criterion-oriented assessment, providing objectification of the process of evaluating the effectiveness of pedagogical influences and creating prerequisites for optimizing existing programs (Plotnikoff et al., 2015; Keating et al., 2005; Bailey et al., 2009).

A significant aspect of improvement is the integration of the Physical Literacy concept, which represents a multidimensional construct combining motivational, cognitive, physical, and behavioral components. This concept can enrich the local approach, emphasizing not only physical fitness but also the formation of sustainable motivation, positive attitudes toward physical activity, and metacognitive strategies for its long-term maintenance (Green, 2014; Balsevich, 2006; Kuramshin, 2010).

Of substantial value is the adaptation of the Long-Term Athlete Development model, which can be transformed in the context of physical education as a differentiated system for developing motor potential, taking into account sensitive periods and individual developmental trajectories. This would help overcome the uniformity of the traditional approach and provide optimal conditions for revealing the individual kinesiological potential of each student (Balsevich, 2009; Lubysheva, 2017; Balsevich & Lubysheva, 2003).

Special attention should be given to implementing a model focusing on factors promoting health rather than preventing pathologies, enriching the theoretical and methodological foundation of local theories, reorienting them from a nosocentric paradigm and emphasizing the formation of a "sense of coherence" as a key factor in sustainable commitment to physical activity (Vilensky & Gorshkov, 2016; Evseev, 2016; Guthold et al., 2018).

In the context of pedagogical methodology, it is advisable to integrate principles of active learning, involving problem-oriented and experiential educational processes, promoting the development of critical thinking, reflective abilities, and metacognitive competencies of students, which is a necessary condition for forming autonomy in the field of physical education (Lesgaft, 1951; Filimonova, 2012; Cardinal et al., 2012).

Integrative synthesis of local and international theories should be carried out based on the principle of complementarity, implying mutual complementation of different approaches and creation of a synergistic effect. At the same time, mechanical borrowing should be avoided, adapting international experience to the national cultural-educational context and socio-economic realities (Clemente et al., 2016; Kwan et al., 2012; Haase et al., 2004).

Implementation of the designated aspects into the context of Kazakhstani theories of physical education will allow creating an innovative educational model that integrates the systematicity and methodological elaboration of the local approach with the psychological validity and multidimensionality of international concepts. This integration will contribute to the formation of a holistic physical culture of the individual, meeting the challenges of modern society and ensuring sustainable commitment to an active lifestyle (Balsevich, 2006; Plotnikoff et al., 2015; Pengpid et al., 2015).

Conclusion. A comprehensive analysis of international and local theories of physical education reveals significant potential for their integration to improve systems of physical education for university students. The research demonstrates that international theories predominantly rely on psychological and sociological foundations, focusing on individual motivation and social interactions, while Kazakhstani approaches have a more pronounced pedagogical character with systematic methodology rooted in the Soviet tradition of physical education. The strategic synthesis of these diverse approaches offers promising directions for improving physical education practice. Implementing psychological aspects of motivational theory can transform directive traditional approaches into person-oriented models where students actively participate in their physical development. Including a socio-ecological perspective will expand pedagogical strategies beyond formal educational systems, involving broader social determinants of physical activity and creating favorable ecosystems for maintaining regular exercise. Strengthening the evidence base through empirical verification methodologies will allow objective assessment of pedagogical impacts and optimization of existing programs. Integrative synthesis should function on principles of complementarity, avoiding mechanical borrowing and adapting international experience to the cultural-educational context and socio-economic realities of Kazakhstan. Such implementation will create an innovative educational model combining systematic local methodology with psychologically sound international concepts, contributing to the formation of a holistic physical culture of the individual that meets modern challenges and ensures commitment to an active lifestyle.

References

Bailey, R., Armour, K., Kirk, D., Jess, M., Pickup, I., & Sandford, R. (2009). The educational benefits claimed for physical education and school sport: An academic review. *Research Papers in Education*, 24(1), 1-27. https://doi.org/10.1080/02671520701809817

Bal'sevich, V. K. (2006). Kontseptsiya al'ternativnykh form organizatsii fizicheskogo vospitaniya detey i molodezhi [The concept of alternative forms of organizing physical education for children and youth]. Fizicheskaya kul'tura: vospitaniye, obrazovaniye, trenirovka – Physical Culture: Upbringing, Education, Training, 1, 23-25 [in Russian].

Bal'sevich, V. K. (2009). Ocherki po vozrastnoy kineziologii cheloveka [Essays on age-related human kinesiology]. Sovetskiy sport [in Russian]

Bal'sevich, V. K., & Lubysheva, L. I. (2003). Sportivno-oriyentirovannoye fizicheskoye vospitaniye: obrazovatel'nyy i sotsial'nyy aspekty [Sports-oriented physical education: educational and social aspects]. Teoriya i praktika fizicheskoy kul'tury – Theory and Practice of Physical Culture, 5, 19-22 [in Russian]

Bauman, A. E., Reis, R. S., Sallis, J. F., Wells, J. C., Loos, R. J. F., & Martin, B. W. (2012). Correlates of physical activity: Why are some people physically active and others not? *The Lancet*, 380(9838), 258-271. https://doi.org/10.1016/S0140-6736(12)60735-1

Buckworth, J., & Nigg, C. (2004). Physical activity, exercise, and sedentary behavior in college students. *Journal of American College Health*, 53(1), 28-34. https://doi.org/10.3200/JACH.53.1.28-34

Cardinal, B. J., Sorensen, S. D., & Cardinal, M. K. (2012). Historical perspective and current status of the physical education graduation requirement at American 4-year colleges and universities. *Research Quarterly for Exercise and Sport*, 83(4), 503-512. https://doi.org/10.1080/02701367.2012.10599139

Cocca, A., Liukkonen, J., Mayorga-Vega, D., & Viciana-Ramírez, J. (2014). Health-related physical activity levels in Spanish youth and young adults. *Perceptual and Motor Skills*, 118(1), 247-260. https://doi.org/10.2466/10.06.PMS.118k16w1

Deliens, T., Deforche, B., De Bourdeaudhuij, I., & Clarys, P. (2015). Determinants of physical activity and sedentary behaviour in university students: A qualitative study using focus group discussions. *BMC Public Health*, 15(1), 201. https://doi.org/10.1186/s12889-015-1553-4

Ding, D., Lawson, K. D., Kolbe-Alexander, T. L., Finkelstein, E. A., Katzmarzyk, P. T., van Mechelen, W., & Pratt, M. (2016). The economic burden of physical inactivity: A global analysis of major non-communicable diseases. *The Lancet*, 388(10051), 1311-1324. https://doi.org/10.1016/S0140-6736(16)30383-X

Filimonova, S. I. (2012). Fizicheskaya kul'tura i sport kak prostranstvo formirovaniya optimal'noy samorealizatsii lichnosti [Physical culture and sports as a space for the formation of optimal self-realization of the individual]. [Doctoral dissertation abstract, Russian State University of Physical Culture, Sports, Youth and Tourism]. Moscow [in Russian]

Green, K. (2014). Mission impossible? Reflecting upon the relationship between physical education, youth sport and lifelong participation. *Sport, Education and Society*, 19(4), 357-375. https://doi.org/10.1080/13573322.2012.683781

Guthold, R., Stevens, G. A., Riley, L. M., & Bull, F. C. (2018). Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1,9 million participants. *The Lancet Global Health*, 6(10), e1077-e1086. https://doi.org/10.1016/S2214-109X(18)30357-7

Haase, A., Steptoe, A., Sallis, J. F., & Wardle, J. (2004). Leisure-time physical activity in university students from 23 countries: Associations with health beliefs, risk awareness, and national economic development. *Preventive Medicine*, 39(1), 182-190. https://doi.org/10.1016/j.ypmed.2004.01.028

Hardman, K., & Marshall, J. (2005). Physical education in schools in European context: Charter principles, promises and implementation realities. In K. Green & K. Hardman (Eds.), *Physical education: Essential issues* (pp. 39-64). SAGE Publications

Keating, X. D., Guan, J., Piñero, J. C., & Bridges, D. M. (2005). A meta-analysis of college students' physical activity behaviors. *Journal of American College Health*, 54(2), 116-126. https://doi.org/10.3200/JACH.54.2.116-126

Kuramshin, Yu. F. (2010). Teoriya i metodika fizicheskoy kul'tury [Theory and methodology of physical culture] (3rd ed.). Sovetskiy sport [in Russian]

Lesgaft, P. F. (1951). Izbrannyye pedagogicheskiye sochineniya [Selected pedagogical works]. Pedagogika. (Original work published 1892) [in Russian]

Lubysheva, L. I. (2017). Sportizatsiya v sisteme fizicheskogo vospitaniya: ot nauchnoy idei k innovatsionnoy praktike [Sportization in the system of physical education: from scientific idea to innovative practice]. Teoriya i praktika fizicheskoy kul'tury [in Russian]

Pengpid, S., Peltzer, K., Kassean, H. K., Tsala, J. P. T., Sychareun, V., & Müller-Riemenschneider, F. (2015). Physical inactivity and associated factors among university students in 23 low-, middle- and high-income countries. *International Journal of Public Health*, 60(5), 539-549. https://doi.org/10.1007/s00038-015-0680-0

Plotnikoff, R. C., Costigan, S. A., Williams, R. L., Hutchesson, M. J., Kennedy, S. G., Robards, S. L., Allen, J., Collins, C. E., Callister, R., & Germov, J. (2015). Effectiveness of interventions targeting physical activity, nutrition and healthy weight for university and college students: A systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 12(1), 45. https://doi.org/10.1186/s12966-015-0203-7

Vilenskiy, M. Ya., & Gorshkov, A. G. (2016). Fizicheskaya kul'tura i zdorovyy obraz zhizni studenta [Physical culture and healthy lifestyle of a student] (4th ed.). KnoRus [in Russian]

Yevseyev, S. P. (2016). Teoriya i organizatsiya adaptivnoy fizicheskoy kul'tury [Theory and organization of adaptive physical culture]. Sport [in Russian]

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