**The interrelationship between digitalization in pedagogical practice and teachers’ emotional well-being**

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**Abstract:** This article analyzes psychological changes occurring in teachers’ emotional well-being in the process of digitalization of pedagogical activity. The influence of digital technologies on educational content, communication formats, professional workload, motivation, and emotional stability is revealed through complex psychological mechanisms.

**INTRODUCTION**

From ancient times, skilled professionals have been treated with respect. Along with the growing recognition of personal dignity and respect for specialists in society, the demand for knowledgeable, independent-thinking, highly qualified, morally mature, and professionally competent specialists is steadily increasing. The decisions and regulatory legal documents of the Government of the Republic of Uzbekistan pay special attention to the training of qualified personnel and define comprehensive support for them as a priority task. At the same time, the idea of a gradual transition from narrow specialization to broad, universal professional training is being promoted. As emphasized in the National Program for Personnel Training, it is necessary to further improve the quality of labor and professional training, apply active teaching methods in continuous education, introduce new pedagogical technologies into practice, and strictly adhere to the principle of unity of education and upbringing [4].

Digital skills are becoming as essential as reading and writing in today’s knowledge-based society. Developing these skills in primary education plays an important role in preparing students for a world in which technology permeates almost all areas of life. The integration of digital literacy into early education is not only about learning how to use technology, but also about understanding its application, possibilities, and consequences.

According to data from the National Training Center of the United States:

1. Interactive methods influence students’ consciousness, emotions, and will, thereby enhancing their thinking.
2. Learning outcomes based on teaching methods are distributed as follows

**Learning Pyramid:**

1. Lecture method – 5%
2. Independent reading – 10%
3. Audio-video learning – 20%
4. Demonstrations – 30%
5. Discussion – 50%
6. Small group learning – 60%
7. Linking learning with practice – 75%
8. Peer teaching (student-to-student) – 90% [6].

Considering these data, the extensive use of interactive, group-based, and practice-oriented methods in organizing the pedagogical process plays an important role in improving the quality of education.

The education system of the 21st century is closely connected with digital technologies, enabling the optimization and interactivity of the pedagogical process. In recent years, online learning platforms, electronic testing systems, interactive presentations, virtual laboratories, and monitoring systems for the educational process have been widely implemented.

The advantages of digitalization include:

-personalization of the learning process and consideration of students’ individual developmental levels;

-reduction of workload and facilitation of quick and effective preparation of teaching materials;

-obtaining accurate data through digital tools for evaluating and analyzing the pedagogical process.

The digitalization of the education system is one of the main directions of the ongoing global transformation. Organizing the pedagogical process through virtual platforms, electronic monitoring systems, distance learning, and digital assessment tools is fundamentally changing the content of teachers’ professional activities. On the one hand, these changes improve educational quality and expand teachers’ opportunities; on the other hand, they generate new psychological demands, increase digital workload, and intensify emotional strain.

Teachers’ emotional well-being is one of the key factors determining educational quality, communication with students, motivation, and professional effectiveness. Emotional well-being refers to an individual’s ability to recognize, regulate, and appropriately express emotions, while maintaining internal psychological balance in stressful situations. In teaching practice, emotional well-being is a crucial factor ensuring the quality of pedagogical communication, professional stability, and the effectiveness of the educational process. Digital processes exert a continuous influence on this well-being. Therefore, a theoretical analysis of the interrelationship between digitalized pedagogical activity and teachers’ emotional well-being is of significant scientific relevance. Reduced emotional well-being in teachers leads to decreased motivation, creativity, and empathic interaction with students.

Thus, developing mechanisms to protect emotional well-being in the digital education process is a pressing necessity.

The digitalization of pedagogical activity affects not only instructional methods but also teachers’ professional identity. While in traditional educational models teachers primarily functioned as transmitters of knowledge, in digitally mediated environments they increasingly assume the roles of facilitators, organizers, and moderators of the learning process. This shift in professional roles requires continuous psychological adaptation and often becomes a source of emotional tension among teachers. Within digital learning environments, many teachers experience a persistent sense of being under constant evaluation. The recording of online lessons, the use of electronic journals, and the continuous monitoring of pedagogical performance through digital platforms contribute to heightened internal pressure. From a psychological perspective, this situation reduces teachers’ sense of emotional security, as they begin to perceive themselves not as autonomous professionals but as objects of permanent assessment. Such conditions may increase anxiety and negatively affect emotional stability.

Another significant factor influencing teachers’ emotional well-being in digitalized pedagogical activity is the fragmentation of attentional resources. Teachers are required to simultaneously manage technological tools, maintain communication with students, deliver instructional content, and monitor technical processes on digital platforms. This multitasking environment increases cognitive load and leads to rapid mental fatigue, reduced concentration, and emotional instability. These effects are particularly evident among experienced teachers whose pedagogical competence is high but whose digital adaptation may be limited.

Changes in the nature of social interaction also play an important role in shaping teachers’ emotional experiences. In traditional face-to-face teaching, direct interpersonal communication serves as a key source of emotional feedback and professional satisfaction. In contrast, digital learning environments often restrict such interaction, making it less spontaneous and emotionally expressive. As a result, teachers may find it difficult to perceive students’ emotional responses, which can reduce their sense of professional fulfillment. Prolonged exposure to this condition may contribute to emotional distancing and professional detachment. From a psychological standpoint, teachers’ self-assessment of their digital competence significantly influences their emotional state. When educators perceive themselves as technologically capable, digitalization becomes a motivating factor that supports professional growth and self-efficacy. Conversely, persistent technological difficulties may undermine self-confidence, increase internal tension, and intensify feelings of professional dissatisfaction. Over time, these factors may elevate the risk of emotional exhaustion. At the same time, digitalization can facilitate the development of new psychological resources among teachers. Skills such as self-regulation, autonomous planning, and adaptive flexibility tend to strengthen in digital teaching contexts. Teachers who effectively integrate digital tools into their professional practice often experience an increased sense of professional autonomy, which contributes to emotional resilience. Moreover, participation in online professional communities provides opportunities for peer support, experience sharing, and emotional reinforcement.

As noted by M. I. Pedayas (1979), teachers’ emotionality is one of the most important factors of influence and interaction in the educational process; the success of emotional impact, students’ mobilization, encouragement of activity, and enhancement of intellectual engagement depend on it [1].

The qualitative emotionality of female teachers (a tendency toward diverse emotional modalities) was studied by T. G. Syriso (1997) using methodologies developed in the laboratory of A. E. Olyapannikova and specifically modified for pedagogical activity. This made it possible to identify clearer dynamics of changes in teachers’ emotional spheres as their teaching experience increased.

In the initial years of work, young teachers tend to experience reduced feelings of joy, while tendencies toward sadness, anger, and fear increase. Later, as experience accumulates, the situation changes: the inclination to experience joy increases, and the tendency toward negative emotions decreases. Teachers’ optimism also grows. This appears to be related, on the one hand, to a reduction in mistakes and failures, and on the other hand, to the formation of a kind of immunity to failures and frustrations encountered in pedagogical activity. A decrease in teachers’ irritability with increasing experience is also significant. Among the four emotional modalities studied, the highest scores were recorded for joy. Scores for sadness were higher than those for fear and anger, which is natural, as fear and anger are poor helpers in pedagogical activity; they lead to confusion and tension, hinder creative initiative and innovation, and interfere with establishing contact with students. The highest emotionality was identified among primary school teachers, which may be related to the sensitivity of their students and the sincerity with which emotions are directly expressed [3].

Digital technologies help utilize this emotionality more effectively in the pedagogical process. For example, interactive whiteboards, educational applications, and online platforms enable teachers to observe students’ emotional reactions in real time, strengthening individualized approaches.

Technologies also stimulate active student participation, increase motivation, and create conditions for teachers’ creative initiative. Thus, through digital tools, teachers can manage their emotional resources more effectively, enhance pedagogical impact, and reduce stress.

Despite the clear advantages of digital literacy, integrating it into primary education presents several challenges, including ensuring equitable access to technology, preparing teachers to deliver effective digital education, and adapting digital literacy to an already crowded curriculum. Addressing these challenges requires a comprehensive and well-structured pedagogical approach that supports both teachers and students [2].

The Relationship Between Digitalization and Emotional Well-Being

The relationship between digital technologies and teachers’ emotional well-being is bidirectional.

1. Positive effects:

-digital tools allow teachers to distribute workload efficiently and individualize instruction;

-interactive platforms increase teachers’ motivation and reduce stress;

-well-organized educational processes enhance teachers’ interest in work and emotional stability.

1. Negative effects:

-improper use of technology increases stress and anxiety;

-technical failures, software errors, and difficulties in quickly mastering new platforms intensify fatigue;

-insufficient pedagogical competence leads to a decline in emotional well-being.

At the same time, teachers’ digital competence is directly related to their emotional stability. Highly competent teachers adapt to technologies more quickly, demonstrate higher work efficiency, and experience lower stress levels.

Under conditions of digitalization, the role of emotions in pedagogical activity becomes more complex. Reduced face-to-face interaction, the dominance of virtual communication, and dependence on technological tools significantly affect teachers’ emotional states. During online lessons, recognizing and managing emotions becomes more challenging, requiring high emotional sensitivity and self-regulation from teachers. Digital technologies also generate new emotional experiences. Technical problems, time pressure, information overload, and constant online activity can intensify stress and emotional exhaustion. However, effective use of digital resources, interactive platforms, and multimedia tools can increase students’ interest and enhance teachers’ emotional satisfaction.

Emotional changes emerging in the digital learning environment necessitate a reconsideration of the role of emotions in the pedagogical process. Although forms and tools of education have changed, the psychological essence of pedagogical influence—namely, the leading role of emotions in education and upbringing—remains relevant. Therefore, analyzing the role of emotions in the digitalization of pedagogical activity requires reference to its historical-pedagogical and theoretical roots. This approach demonstrates that emotions have always been significant in pedagogy, while in modern digital education they manifest through new forms and mechanisms. Consequently, classical pedagogical ideas about emotional influence retain their scientific and practical value in today’s digitalized educational environment.

It is a well-established scientific fact that the educational process becomes more effective when emotionally enriched by the teacher. The great Czech educator J. A. Comenius emphasized the importance of emotions in education in his work Pampedia written in the second half of the 17th century, highlighting the need to evoke pleasure and interest in learning. He wrote that people should reach a level where they learn everything with enjoyment. If a person understands, first, that by nature they are inclined toward what one aims to develop in them, they will strive for it with joy; second, if they realize they possess the ability to achieve what they desire, they will rejoice in their capability; and third, if they recognize that what they thought they did not know, they actually know, they will even find joy in their ignorance.

These ideas were later developed by Russian Enlightenment educators. In the second half of the 18th century, N. I. Novikov emphasized the importance of emotional influence in education, stating that initial knowledge and perceptions should be instilled in young minds precisely through emotions, as no human need is satisfied without being associated with pleasure and enjoyment [3]. These views once again confirm the importance of considering not only knowledge transmission but also teachers’ emotional development in the pedagogical process.

If teachers’ preparation—namely, their knowledge and pedagogical skills—were always at the required level, and if students’ interest, attention, and memory were consistently high, it would be possible to achieve high results using any teaching method. However, these indicators are dynamic; therefore, conducting the pedagogical process while accounting for such changes is one of the most essential conditions. Otherwise, the intended goals of education and upbringing cannot be achieved.

For this reason, various forms and methods of education have emerged since ancient times and continue to be improved [5], including:

1. Traditional teaching methods: lectures, explanations, written and oral exercises;
2. Interactive methods: group work, problem-based tasks, learner-centered approaches;
3. Digital and online methods: virtual laboratories, electronic tests, interactive presentations, online assessment systems.

Combining different methods is necessary to achieve high effectiveness in the pedagogical process. For instance, integrating interactive methods with digital platforms significantly increases teachers’ efficiency and students’ learning outcomes.

A set of interrelated requirements constitutes a generalized model of the teacher. The contemporary requirements for competitive teaching personnel include:

-instructional competence;

-ability to educate and nurture;

-personal qualities ensuring the human factor in education;

-ability to objectively assess and monitor learners’ knowledge.

Instructional competence is determined by key factors such as supportive learning environments,

-psychological and pedagogical preparedness,

-deep subject knowledge, professional erudition,

-mastery of modern pedagogical and information technologies,

-computer literacy,

- proficiency in at least one foreign language as a source of professional information,

-engagement in scientific and methodological work,

- knowledge of regulatory documents of the continuous education system.

Educational competence is based on teachers’ high cultural and moral standards, personal ethics, patriotism, and sense of duty. Personal qualities include fairness, integrity, benevolence, sociability, and a sense of humor. Objective assessment and monitoring of learners’ knowledge are closely linked to instructional and educational competence. Teachers must master mechanisms of objective assessment, effectively apply rating systems, and develop and use standardized tests [6-10].

The implementation of these requirements enhances teachers’ professional competence and enables effective work in a digitalized educational process. At the same time, high emotional well-being helps reduce stress and fatigue, foster positive student motivation, and ensure effective use of digital platforms.

**CONCLUSION**

The digitalization of pedagogical activity is a key means of improving effectiveness in modern education. Digital platforms and interactive technologies make the learning process more engaging and active for students while significantly increasing teachers’ professional efficiency. The effectiveness of education is directly related to teachers’ professional competence and emotional stability.

When teachers’ emotional well-being is high, they successfully manage stress and fatigue, optimally utilize psychological resources, and create a motivating and positive learning environment. Effective use of digital and interactive tools further enhances learning outcomes and supports the implementation of innovative approaches.

Thus, the harmony between pedagogical competence and emotional stability has strategic importance in improving educational quality. This harmony enables teachers to adapt instruction to individual learners’ needs, reinforce knowledge, and successfully implement pedagogical innovations. In-depth study of the relationship between digitalized pedagogical processes and teachers’ psychological well-being serves as an important scientific foundation for making the education system more effective, positive, and innovative in the future.

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