

## PREPARING STUDENTS FOR PROFESSIONAL ACTIVITIES BASED ON AL-FARABI'S PEDAGOGICAL VISION USING DIGITAL TECHNOLOGIES

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**Abstract.** *This article discusses the role of Al-Farabi's pedagogical views in the modern educational process and their integration into the process of preparing students for professional activity through digital technologies. The study analyzes Al-Farabi's ideas about "virtuous society", "unity of education and upbringing", "mental maturity" in combination with the digital educational environment. Also, the importance of the effective use of ICT tools, digital pedagogical platforms, multimedia resources and distance learning technologies in the development of students' professional skills is scientifically substantiated. The results of the study showed that the implementation of Al-Farabi's ideas using digital technologies strengthens students' competencies in independent thinking, creativity, problem-solving and professional preparation.*

**Keywords:** *Al-Farabi, digital technologies, digital pedagogy, vocational training, innovative education, digital competence, educational methods, distance learning, pedagogical heritage, virtuous society, integration.*

The modern education system is undergoing rapid digitalization processes on a global scale. This process is fundamentally changing the content, methods and organizational forms of the educational process. Using the capabilities of digital technologies in preparing students for professional activity, especially in higher education institutions, has become an urgent task, since today's specialist must be able to search for, process, analyze information, use digital platforms and have digital communication skills.<sup>1</sup> This requires education based on an integrative, technological and competency-based approach instead of the traditional education model. The pedagogical views of the great scholar Abu Nasr Al-Farabi are of particular importance in the scientific substantiation of this process. His ideas about education and upbringing, the principles of forming a person as a perfect person, and his concept of intelligence, enlightenment and virtue as a whole are in harmony with the principles of modern digital education.<sup>2</sup> In particular, Al-Farabi's principles of conscious acquisition of knowledge, linking education with the intellectual and spiritual development of a person, and defining upbringing and education as a single process are considered the main philosophical foundations of digital pedagogy.

Today's digital platforms are expanding the possibilities of interactive thinking, virtual communication, independent research, digital project creation, networked collaboration, and rapid feedback.

<sup>1</sup> Xodjayev A. Raqamli pedagogika: nazariya va amaliyot. – Toshkent: Innovatsiya ziyo, 2022. UNESCO. Digital Learning Framework. – Paris, 2020. OECD. Teaching and Learning in the Digital Age. – Paris, 2021.

<sup>2</sup> Al-Farobiy. "Fozil odamlar shahri". – Toshkent: G'afur G'ulom nomidagi nashriyot, 2020. Al-Farobiy. "Baxt-saodatga erishuv haqida risola". – Toshkent: Fan, 2018.

This process practically confirms Al-Farabi's vision of the harmony of knowledge and practice. The digital learning environment equips students not only with theoretical knowledge, but also with modern professional competencies<sup>3</sup>.

Therefore, the relevance of the research is that there is a need to develop an innovative, scientifically based model of preparing students for professional activity, combining the pedagogical heritage of Al-Farabi with digital educational approaches. To date, although digital technologies are widely introduced, their integration with the classical pedagogical traditions of the East has not been scientifically studied enough. This article aims to fill this gap and clarify the theoretical and practical foundations of the integrative approach.

The methodological basis of the study was formed by modern digital education concepts, Al-Farabi's pedagogical heritage, a constructive approach, a person-centered education theory, and a competency-based education model. These foundations ensure the scientific accuracy, reliability, and practical applicability of the study. The following methods were used in the research process.

Theoretical and methodological analysis. The ideas about education, upbringing, development of the mind, and the formation of a virtuous personality in Al-Farabi's works were studied. International (UNESCO, OECD) and local scientific sources on digital education were also analyzed.<sup>4</sup>

This method helped to determine the theoretical foundations of the study. Analysis based on a constructive approach. The process of developing students' professional readiness was based not on giving ready-made knowledge, but on creating opportunities for students to independently discover, learn and apply knowledge. The support of digital technologies for the constructive learning process was analyzed. Systematic approach. Digital pedagogical tools and Al-Farabi's views on education were systematically considered in an interconnected manner. Each digital component of the learning process (multimedia, electronic resources, virtual communication, online platforms) was combined with pedagogical goals. Diagnostic methods. The level of pre-experimental competence of students was determined, and indicators such as readiness for professional activity, digital literacy, independent thinking, and problem-solving were assessed using special diagnostic tests. Pedagogical experiment. During the study, lessons were organized on the basis of digital platforms adapted to the principles of Al-Farabi. The experiment was conducted in two stages: diagnostic (initial) and result (final) stages. During the experiment, tools such as Google Classroom, Moodle, Zoom, Quizizz, Canva, Padlet were used. Practical observation and monitoring. Students' activity in the lesson process, the level of independent learning, and participation in digital projects were regularly monitored. The quality of digital products was assessed by experts. Comparison and contrast method. The results of the experiment were compared with traditional teaching methods, and differences, advantages, and achievements were identified. Statistical analysis. The data obtained were processed using mathematical and statistical programs, and percentages, averages, and dynamic changes were determined. This methodological approach ensured the scientific validity of the research results and revealed effective ways to combine Al-Farabi's views with modern digital education.

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<sup>3</sup> To'rayev B., Rashidova D. Zamonaviy ta'limda AKTdan foydalanish metodikasi. – Toshkent: Fan va texnologiya, 2021.

<sup>4</sup> UNESCO. Digital Learning Framework. – Paris, 2020. OECD.

During the research, a pedagogical experiment was conducted to assess, study and develop students' professional readiness based on the integration of Al-Farabi's pedagogical views with digital technologies. The experiment was organized in two stages: initial diagnostics and the end of the experiment. At both stages, students' digital competence, professional motivation, level of independent thinking, creativity, teamwork skills, practical skills, and the level of mastery of Al-Farabi's pedagogical principles were measured. The results obtained showed that this integrative approach was highly effective. Before the experiment, students had an average of 50–55% knowledge and skills in working on digital platforms, creating electronic resources, and using digital analysis tools. During the research, as a result of the systematic use of tools such as Google Classroom, Moodle, Canva, Padlet, Quizizz, and Zoom, digital literacy among students significantly increased.<sup>5</sup>

At the end of the experiment, the digital competence indicator was recorded in the range of 78–87%. This means that students have formed the ability to independently learn, process information, and work in a digital environment. Students were given tasks prepared based on the principles of Al-Farabi's views, such as "virtuous human model", "perfection of reason", "harmony of science and practice", "social responsibility". Before the experiment, the level of knowledge on these concepts was on average 40–45%, but in the end it reached 82%. This result confirms the effectiveness of the application of Al-Farabi's legacy to modern education. Problem situations, virtual discussions, and analytical tasks given in a digital environment encouraged students to make independent decisions. As a result, the level of students' analytical thinking increased from the initial indicator of 48–52% to 74–79%. This change is consistent with Al-Farabi's principle of "reaching truth through thinking". Students' practical skills in modeling professional situations, creating digital projects, and preparing methodological products have significantly increased.

According to experts, after a two-month trial, the level of professional readiness of students increased from 56% to 84%. In particular, there was a sharp increase in such areas as creativity, communication culture, speed of professional decision-making, and responsibility. Digital group work, joint presentation creation, and virtual discussions developed teamwork. As a result of the experiment, teamwork competence increased from 54% to 81%. This was shaped in line with Al-Farabi's vision of the importance of collaboration in society. The interactivity, visuality, and active participation of digital methods have increased intrinsic motivation for learning.<sup>6</sup> According to the survey results, 89% of students expressed their readiness to use the digital learning process in their professional activities. The results clearly showed that combining Al-Farabi's legacy with digital education is effective in comprehensively preparing students.

Based on the research results, it can be seen that integrating Al-Farabi's pedagogical views into the digital learning process had a deep and comprehensive impact on the professional readiness of students. This section analyzes the content, scientific interpretation, and pedagogical significance of the results. First of all, Al-Farabi's concept of "mental maturity" made it possible to develop independent thinking and analytical competencies in students through digital technologies.

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<sup>5</sup> Smith J., Dalton R. Integrating Classical Philosophy in Digital Education. – London: Routledge, 2021.

<sup>6</sup> Yusupov M. Raqamli ta'lim muhitida talabalarning kompetensiyalarini rivojlantirish // Oliy ta'lim muammolari jurnali. – 2022. – №3. – B. 45–52.

Virtual discussions, digital analysis tasks, and multimedia-based educational materials activate the thinking process of students. Therefore, a significant increase in the independent thinking indicator in the experiment directly indicates the harmony of digital methods and Al-Farabi's principles. In addition, Al-Farabi's idea of the unity of education and upbringing is more effectively implemented in a digital environment. Because digital educational tools not only provide knowledge, but also form moral responsibility: taking responsibility in collective projects, expressing one's opinion in a civilized manner, adhering to the culture of social communication - all this develops the qualities of a virtuous person. Another important aspect of the experimental results is the increase in students' internal motivation for professional activity. This was due to the interactivity of digital technologies, the abundance of visual information, and the fact that tasks are brought closer to real professional situations. This fact practically confirmed Al-Farabi's views on the "connection of science with practical life". Also, through digital projects, students' competencies in professional decision-making, problem-solving, analysis and evaluation were developed. Digital technologies also supported Al-Farabi's idea that "the thirst for knowledge and the desire for it are the highest virtues of man." Because digital tools encouraged students to search for themselves, independently collect information, and independently expand their knowledge. This is evidenced by the increase in the positive attitude towards learning observed in students. The development of teamwork competencies is also of particular note. Al-Farabi points to the mutual cooperation of members of society as one of the important foundations of human maturity. Activities such as digital group work, creating a common presentation, and virtual exchange of ideas further developed this social competency in students. As a result, students' team communication, management, and organizational skills were significantly strengthened. Also, the digital environment itself served to increase the student's personal responsibility. Submitting assignments on time, participating online, and completing a digital portfolio - all this formed the student's professional discipline. This is fully consistent with Al-Farabi's idea that "a person must follow order and discipline in order to excel in his profession." In general, the results of the study show that combining Al-Farabi's pedagogical heritage with digital technologies is an effective model for preparing students for professional activity not only theoretically, but also practically.

Through this approach, students have developed modern skills such as digital literacy, professional competencies, independent and critical thinking, social communication, teamwork, and creativity.

During this study, an effective model of preparing students for professional activity based on the integration of Al-Farabi's pedagogical views with digital technologies was developed and its practical results were studied in depth. The results obtained show that the combination of digital education and classical pedagogical heritage makes the educational process more meaningful, interactive and based on a competency-based approach. In particular, digital technologies have made it possible to successfully apply Al-Farabi's principles such as "perfection of reason", "harmony of knowledge and practice", "virtuous human upbringing" in the modern educational process. One of the main conclusions of the study is that students' digital competence, independent thinking, ability to solve problem situations, teamwork culture and professional readiness have significantly increased. Training organized through digital platforms served to form self-development, creativity and professional responsibility in students.

This process serves as an important factor in the development of a student as a competitive specialist in the modern labor market. In addition, Al-Farabi's views on the unity of education and upbringing, the human desire for spiritual perfection, cooperation and responsible living in society were more clearly manifested in the digital environment. Digital projects, virtual discussions and interactive tasks had a positive impact on strengthening the personal qualities of students. In general, the results of the study confirmed that the introduction of Al-Farabi's pedagogical heritage into the educational process using digital technologies is an effective and scientifically based approach that increases the professional readiness of students. This integrative model is considered a promising pedagogical technology that can be widely implemented in higher education practice in the future.

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