International Journal of Basic and Applied Sciences, 14 (8) (2025) 374-381

International Journal of Basic and Applied Sciences

Website: www.sciencepubco.com/index.php/IJBAS
https://doi.org/10.14419/6fx8b339
Research paper

The Use of Artificial Intelligence in The Training of Social Interaction Specialists in Higher Education Institutions

Sofiya Chovriy [1] *, Oleh Plakhotnik [2], Oksana Varhata [3], Kyrylo Tulin [2], Alla Kondratiuk [4], Liudmyla Yasnohurska [5], Aryna Frumkina [6], Andrii Lytvynov [7], Iryna Lytvynenko [8], Iryna Sopivnyk [9]

[1] *Ferenc Rakoczi II Transcarpathian Hungarian College of Higher Education, Ukraine*
[2] *Taras Shevchenko National University of Kyiv, Ukraine*
[3] *Khmelnytskyi National University, Ukraine*
[4] *National Pirogov Memorial Medical University, Ukraine*
[5] *Rivne State University of the Humanities, Ukraine*
[6] *International Humanitarian University, Ukraine*
[7] *Oleksandr Dovzhenko Hlukhiv National Pedagogical University, Ukraine*
[8] *Admiral Makarov National University of Shipbuilding, Ukraine*
[9] *National University of Life and Environmental Sciences of Ukraine, Ukraine*
**Corresponding author E-mail: opria216@ukr.net*

Received: December 5, 2025, Accepted: December 13, 2025, Published: December 17, 2025

Abstract

The article reveals the concept's content, essence, and advantages. The main properties of artificial intelligence are highlighted, and measures have been developed to address potential problems in successfully integrating artificial intelligence tools into the educational process for training social interaction specialists. The most effective proposals for introducing artificial intelligence into the higher education curriculum are documented. Examples and approaches for training future specialists in social interaction through artificial intelligence are provided. Recommendations for the use of artificial intelligence in the training of future social interaction specialists are grouped. To develop profes-sional competence in artificial intelligence technologies among higher education students, we engaged students in the social interaction spe-cialty. All participants, aged 18-25 years, provided consent for the study before its start and were informed about the conditions of participa-tion in the questionnaire. We assessed the growth of professional competence among higher education students in the social interaction spe-cialty using artificial intelligence technologies, using the Pearson $\chi 2$ homogeneity criterion. The initial states of EG and CG coincide, but the final states differ. The reliability of the difference in the characteristics of EG and CG after the completion of the experiment meets the re-quirements of statistical research.

Keywords: *Artificial Intelligence; Institutions of Higher Education; Professional Competence; Social Interaction Specialists; Specialist Training.*

1. Introduction

The exponential growth of the field of digital technologies is evidenced by global trends, with developments in artificial intelligence occupying a prominent place. Such innovative technologies are increasingly used across various spheres of human activity, including education. On a global scale, the processes of implementation of the concept of "Education 4.0 and digitalization, which involves the modernization of innovative technologies and the educational process using artificial intelligence, are being intensified.

The successful implementation of innovative reforms worldwide requires coordination with the latest trends in educational content, particularly the formation of professionals in social interaction with the necessary digital competencies for lifelong competitiveness. The ability to apply the knowledge acquired in higher education to solve various professional problems comes first because "the quality of education is now associated with the concept of a specialist's competitiveness, his professional competence, which primarily involves the ability to work with information, make independent, informed decisions" [1].

Artificial intelligence is changing the way we get an education, work, learn throughout life, and live. Everyone should be able to benefit from artificial intelligence and contribute to the development of artificial intelligence [2].

Social interaction specialties encompass a broad range of professions centered on facilitating effective communication, interpersonal support, and collaborative problem-solving within diverse social contexts. These fields – such as social work, psychology, education, counseling, and community development – require advanced communicative competence, cultural awareness, and the ability to navigate

complex human dynamics. As contemporary societies become increasingly interconnected and digitally mediated, specialists in social interaction–oriented professions face new challenges and opportunities related to multicultural communication, inclusive practices, and technology-enhanced service delivery. The training of future professionals in these specialties demands innovative pedagogical approaches, integration of digital tools, and the development of flexible skills that support meaningful interaction in both physical and virtual environments.

Higher education has a significant role in solving this problem. Therefore, the European Association of Universities presented three key considerations" [3].

The first calls for universities to formally discuss transparent, responsible, ethical use of new AI technologies and tools with students and staff.

Second, according to the EUA, there is a need to reform and revise assessment and teaching practices in higher education, reaffirming the emphasis on authentic formative assessment.

Third, given universities' global role, the association adopted "Universities without Walls: A vision for 2030" to support strategic planning, technological development in response to changing lifestyles, and the production of knowledge for new social innovations and technologies. The EUA reported that the central element of universities' activity is the promotion and development of innovation, ensuring the impact of new technologies on our society and preparing for labor markets that are changing due to digitalization, in particular, artificial intelligence. As a result, changing the way universities and their partners work and ensuring the production of a modern, competitive specialist is key.

2. Literature Review

Recent research from scholars across various countries highlights the increasing importance of training Social Interaction Specialists and developing their digital professional competencies to ensure long-term competitiveness in an increasingly digital labor market. However, these studies differ markedly in their conceptual approaches, pedagogical interpretations, and the extent to which AI technologies are practically implemented in higher education.

Shevchenko et al. [4] frame AI primarily within the Education 4.0 paradigm, emphasizing its transformative potential in modernizing curricula and learning technologies. Their findings underscore the benefits of AI integration, such as automated assessment, optimization of educational resources, and personalized learning trajectories. Yet, the study prioritizes technological and organizational advantages, leaving pedagogical risks, teacher readiness, and student engagement with AI largely unexplored.

In contrast, Derevyanko [5] focuses on emotional AI, highlighting systems capable of recognizing and interpreting human emotions, thereby extending AI's role beyond instrumental functions to support both professional and transversal competencies. While this perspective enriches our understanding of AI's potential in psychology education, its narrow disciplinary focus limits generalizability to broader Social Interaction Specialist training.

Androshchuk and Maluga [6] address ethical, civic, and regulatory aspects of generative AI and ChatGPT in higher education, providing a normative framework for responsible AI use. However, their recommendations remain largely declarative and lack empirical validation regarding their effectiveness in cultivating ethical competencies among students. Similarly, Plahotnik [7] demonstrates mature AI applications in criminal justice systems (e.g., HART, COMPAS, Prometea), yet the transferability of these solutions to educational contexts is discussed superficially, without clear methodological guidance for pedagogical adaptation.

Viznyuk et al. [8] emphasize practical tools such as mobile applications and chatbots for educational support and communication. While this research highlights applied technologies, it does not critically assess learning outcomes or address potential challenges such as cognitive overload and overreliance on automation. Godunova and Tolochko [9] further reveal a systemic contradiction: adolescents exhibit confidence in using AI tools but lack a theoretical understanding of their underlying mechanisms, indicating a gap between everyday digital practices and structured educational training.

Finally, Marienko and Kovalenko [10] explore AI through open science and cloud-based services, promoting reflective learning and data privacy. Although their approach strengthens methodological foundations for responsible AI use, it is primarily tailored to general higher education contexts and does not fully address the specific professional competencies required by Social Interaction Specialists.

Overall, the reviewed literature illustrates a broad spectrum of AI applications in education—technological, emotional, ethical, and legal—but consistently highlights the absence of integrative pedagogical models that combine technological innovation, competency-based training, and ethical responsibility. This gap underscores the need for further research to develop systematic, evidence-based approaches for the purposeful integration of AI in the professional training of Social Interaction Specialists in higher education.

The purpose of the article is to prove the significant impact of artificial intelligence technologies on the organization of the educational process in the training of specialists, reveal the role of artificial intelligence in the modern environment, and determine the aspects that must be taken into account in the formation of professional competence in students of higher education using artificial intelligence technologies.

3. Methodology

3.1. Research design

The study has a mixed design (mixed methods) and combines theoretical analysis, qualitative and quantitative empirical methods, which made it possible to comprehensively study the problem of forming professional competence of future specialists in the specialty "Social Interaction" using artificial intelligence technologies.

Theoretical methods (literature review methodology)

To conduct the review and conceptual analysis, the following were used:

- Generalization and content analysis of pedagogical and interdisciplinary scientific literature on the problem of applying artificial intelligence in education.
- Systematization and classification of scientific approaches, concepts and models of using AI in professional training.
- Analysis and clarification of basic research concepts (artificial intelligence, professional competence, digital learning technologies).
- Inductive-deductive method, which provided movement from individual empirical facts to theoretical generalizations and, conversely, from general patterns to specific manifestations of the use of AI in students' educational and cognitive activities.

The literature review was carried out using academic databases (Google Scholar, JSTOR, etc.) and bibliography management programs (Zotero, Mendeley).

3.2. Empirical research methods

Within the empirical part, the following were used: observation; interviewing; questionnaires; pedagogical experiment; analysis of students' activity products (multimedia creative projects); methods of interpretation and generalization of empirical data.
Qualitative methods were used to: identify the problem and form hypotheses; analyze motivation, attitudes and internal factors of perception of AI technologies.
Quantitative methods were aimed at: verifying the effectiveness of the proposed pedagogical model; statistical confirmation of the results obtained.

3.3. Research sample

The study involved 180 students aged 18–25, studying in the specialty "Social Interaction".
The sample was formed by random selection taking into account the criteria: representativeness; meaningfulness; equivalence of the control (CG) and experimental (EG) groups.

3.4. Stages of the pedagogical experiment

The pedagogical experiment was implemented in three stages:
Preparatory stage (definition of the goal, objectives and hypotheses of the study; development of an experimental plan; selection of measurement methods; formation of control and experimental groups; verification of their homogeneity).
Main stage (introduction of artificial intelligence technologies into the educational process; implementation of the pedagogical experiment).
Final stage (analysis of the obtained results; statistical verification of reliability; formulation of conclusions regarding the pedagogical effect.
Data processing and analysis methods were carried out using the Pearson homogeneity criterion (χ^2) - to assess the dynamics of the formation of professional competence and statistical processing of the results using MS Excel and SPSS.
It was established that: the initial indicators of EG and CG are homogeneous; after the experiment, statistically significant differences between the groups were recorded, which confirms the effectiveness of the implemented technologies.
Ensuring the reliability and ethics of the study
The experiment was conducted on the basis of: Taras Shevchenko National University of Kyiv; M. I. Pirogov Vinnytsia National Medical University; National University of Defense Ukraine.The experiment was conducted at Taras Shevchenko National University of Kyiv, the National Pirogov Memorial Medical University, and the National Defence University of Ukraine. The scientific councils of universities permit the conduct of experiments to avoid violating ethical considerations within institutions of higher education.
Identified Knowledge Gaps and Directions for Further Research
Despite the growing body of research on the use of artificial intelligence in higher education, several significant knowledge gaps remain. First, there is limited longitudinal evidence examining the sustained impact of AI-supported training on the long-term professional competence and career development of social interaction specialists; most existing studies, including experimental ones, focus on short-term outcomes. Second, the literature insufficiently addresses the risks of over-reliance on AI technologies, such as reduced critical thinking, diminished reflective practice, and potential erosion of human-centered professional judgment, which are particularly crucial in social interaction–oriented professions. Third, there is a lack of standardized and validated assessment frameworks for measuring AI-related professional competence in social interaction specialties, which complicates cross-study comparisons and limits the generalizability of empirical findings. Addressing these gaps requires longitudinal research designs, balanced pedagogical models that emphasize human–AI complementarity, and the development of unified assessment criteria tailored to the specific competencies of social interaction specialists.

4. Results and Discussion

4.1. Content, essence of the concept, and advantages of artificial intelligence

The field of education is not a pioneer in the introduction of artificial intelligence. However, many applications and educational programs use this technology today. Nowadays, artificial intelligence is increasingly used in education and implemented as a direction of modern science. Moreover, it is new technologies that are driving the future of education toward connectedness. At the same time, the achievements of artificial intelligence play a significant role in education and open up new opportunities in the management and structure of educational institutions [18].
Artificial intelligence is “the ability of digital devices to perform the tasks inherent in intelligent beings. The basis of any intelligence is a neuron. A biological neuron is what we are talking about when we are talking about people, and an artificial neuron (a model of biological neurons, a mathematical function) is what we are talking about when we are talking about computers.
A neural network is a subspecies of artificial intelligence, a product of human activity (no matter how intelligent a neural network is); it can help develop logically complex algorithms [8].
Artificial intelligence is a toolkit of services or systems that enable the adaptation and collection of data from open repositories or user data, and, upon a submitted user request, generate new conclusions and solutions [10].
The set of scientific theories, methods, and techniques includes artificial intelligence, which aims to replicate a person's cognitive abilities in machines. An artificial intelligence system is capable of using big data, evaluating, calculating, studying, predicting, and analyzing abstractly, and making deductive reasoning. The speed of information processing by artificial intelligence when making procedural decisions, and its effectiveness in educational and professional activities, create a model of digital automation of procedural decisions. In such proceedings, this kind of automation simplifies procedural decision-making and increases efficiency from a procedural-economic perspective [7].
The use of machine learning, neural networks, and all artificial intelligence technologies allows the optimization of the educational process of training social interaction specialists, providing significant advantages:

- Artificial intelligence technologies contribute to the individualization of training for social interaction specialists, tailoring the pace of assimilation to students' prior knowledge and abilities by developing individual education plans and adapting educational content [20].
- Neural networks can analyze massive datasets and identify hidden patterns, helping optimize the distribution of teaching methods for individual topics and educational resources.
- Artificial intelligence for high-quality performance of practical tasks and the study of professional disciplines, when combined with practical remote and independent work with the subject, enables the automation of the preparation of individual recommendations for students.
- The integration of artificial intelligence increases efficiency and optimizes all stages of training for social interaction specialists. It is possible to automate, using machine learning, the development of students' professional competencies and the assessment of the quality of their assimilation of educational material, thereby simplifying control over the educational process.
- To obtain insights from big data during the educational process, significant application of Data Science technologies to improve the quality of the educational process [19].
- Creation of virtual 3D laboratories, simulations of work environments of social interaction specialists based on artificial intelligence for modeling and reproduction of complex professional processes.
- For discussing creative works, communication, building platforms, and receiving recommendations from artificial intelligence and feedback, which will help students grow into highly competitive future professionals [11].

The integration of artificial intelligence tools into the educational process for training social interaction specialists is an important step toward developing the necessary skills and competencies using innovative technologies. Supplementing the disciplines of the professional training cycle with modules will enable updating training programs on the principles of artificial intelligence systems, laying a theoretical foundation for successful work with such systems [4].

4.2. The main properties of artificial intelligence

Today, scientists are actively researching artificial intelligence technologies in education. Special attention is paid to the use of artificial intelligence technologies in the training of social interaction specialists and to the development of innovative approaches in professional activity. Artificial intelligence (AI) exhibits several core properties that underpin its application in educational and professional contexts. Sensory receptivity enables AI to process and analyze data from multiple sources, including images, sensory inputs, and audio. Self-learning allows AI systems to improve performance through data analysis, optimization of solutions, and predictive modeling. Decision-making capabilities emerge from AI's ability to interpret contextual information and make informed choices. Language comprehension facilitates human–AI interaction via text and voice communication. AI also demonstrates high speed and accuracy, performing analysis, synthesis, search, and generation of information almost instantaneously. Finally, creativity enables AI to produce novel solutions and ideas beyond existing knowledge frameworks [12].

The integration of artificial intelligence tools into the educational process for training social interaction professionals is an essential step in developing future professionals' skills in working with innovative technologies and the necessary competencies [21]. Therefore, there is a need for constant updating of educational programs for the training of social interaction specialists, which will make it possible to add modules to the content of the disciplines of the cycle of professional training of social interaction specialists dedicated to the practical use of specific AI tools of artificial intelligence, the principles of operation of artificial intelligence systems, areas of their application in professional activity, as well as laying down for theoretical basis of successful work with such systems [13].

4.3. Measures to solve potential problems of successful integration of artificial intelligence tools in the educational process of training social interaction specialists

To ensure the effective integration of artificial intelligence tools into the education of social interaction specialists, a set of strategic measures is required. These include establishing partnerships with AI developers and IT companies; modernizing institutional digital infrastructure; embedding ethical and regulatory standards for AI use into curricula; providing continuous professional development for academic staff; involving students in AI-related research and innovation activities; updating educational and methodological support through curriculum revision and AI-enhanced learning tasks; securing financial resources through grants and industry collaboration; and promoting awareness of the educational potential of AI to reduce resistance to innovation. The implementation of these measures will facilitate the sustainable integration of AI technologies into professional training and enhance graduates' competitiveness in the labor market [4].

4.4. The most effective proposals for the introduction of artificial intelligence into the educational process of a higher school

Among contemporary educational technologies, Gartner analysts identify several approaches as particularly effective for integrating artificial intelligence into higher education. These include augmented intelligence, which supports human–AI collaboration by automating routine tasks, reducing errors, and enhancing cognitive productivity through methods such as case-based learning, digital content processing, and simulation-based activities. AI-powered chatbots and virtual assistants facilitate automated text- and voice-based interaction, providing academic support, learning assistance, and feedback for large student cohorts [14].

Multimedia learning technologies supported by AI enable the management and personalization of educational processes through mathematical modeling and data-driven decision-making, allowing the construction of individual learning trajectories via digital games, webinars, practical training, and project-based activities. Gamification mechanisms further enhance learner motivation by incorporating game elements into non-game contexts, fostering engagement, collaboration, and goal-oriented learning under time constraints [16].

Another important direction is the seamless integration of AI solutions into EdTech ecosystems, particularly through messenger-based platforms, thereby improving accessibility, scalability, and user acceptance of AI-driven services. Personalized and adaptive learning systems leverage AI to adjust task complexity, learning pace, and content according to learners' interests and progress, while continuously monitoring individual performance and signaling learning difficulties to instructors [17].

Finally, automated assessment and interval training represent key AI-enabled innovations, allowing for individualized feedback, analysis of learning outcomes, development of personalized study plans, and systematic reinforcement of new knowledge. Collectively, these

approaches demonstrate the potential of artificial intelligence to enhance the effectiveness, flexibility, and learner-centeredness of higher education, particularly in the training of future social interaction specialists [15].

4.5. Research results

We involved 180 students majoring in social interaction to develop professional competence in artificial intelligence technologies among higher education students.

To assess the effectiveness of the development of professional competence among higher education students majoring in social interaction with the use of artificial intelligence technologies, research and experimental work were conducted. All participants, aged 18-25 years, provided consent for the study before its start and were informed about the conditions of participation in the questionnaire. To determine the level of professional competence in the use of artificial intelligence technologies, a questionnaire was administered to students of higher education majoring in the social interaction specialty. Using a questionnaire, the level of professional competence development among higher education students in the social interaction specialty using artificial intelligence technologies was assessed. According to the questionnaire, a high number of points indicates an increased level of professional competence among students of higher education in the social interaction specialty using artificial intelligence technologies, and, on the contrary, a low number indicates a lack of motivation among the respondents according to the specified parameters (Fig. 1):

- A score of 0 to 15 points indicates a low level of professional competence formation among students of higher education majoring in social interaction with artificial intelligence technologies.
- A score of 16 to 35 points indicates an average level of professional competence formation among higher education students in the social interaction specialty using artificial intelligence technologies.
- A score of 36 to 50 points indicates a high level of professional competence among students of higher education majoring in the social interaction specialty using artificial intelligence technologies.

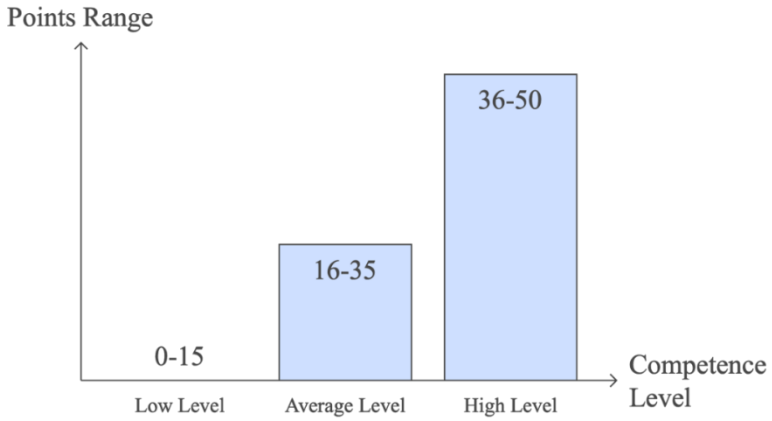

Fig. 1: Professional Competence Levels of Students' Social Interaction Specialty Using AI.

The formation of professional competence among students of higher education in the social interaction specialty using artificial intelligence technologies of both groups (CG and EG) was measured by their indicators during the survey and allowed the respondents to have a system of knowledge about the ability to interpret information, opportunities, features, limitations of ICT, technical means intended for the automation of information processes, to make decisions regarding the professional social interaction specialty.

Respondents were asked questions related to the essence of the concept and advantages of artificial intelligence, approaches to the use of artificial intelligence in the training of specialists, the main properties of artificial intelligence, measures to solve potential problems of the successful integration of artificial intelligence tools in the educational process of training specialists, and their own level of motivation regarding the study of the use by applicants of higher education, social interaction specialty of artificial intelligence technologies. 62% of respondents (a large share) need to improve their own skills and knowledge regarding the use of artificial intelligence technologies. However, it was found that teaching (online learning) and conditions, especially in rural areas (lack of theoretical and practical support, violations of sanitary and hygienic standards, non-compliance with premises, etc.), hinder respondents' motivation to develop professional competence using artificial intelligence technologies.

For those who partially belong to this work, the study revealed that 35% of respondents were poorly motivated, while 65% were not (Fig. 2).

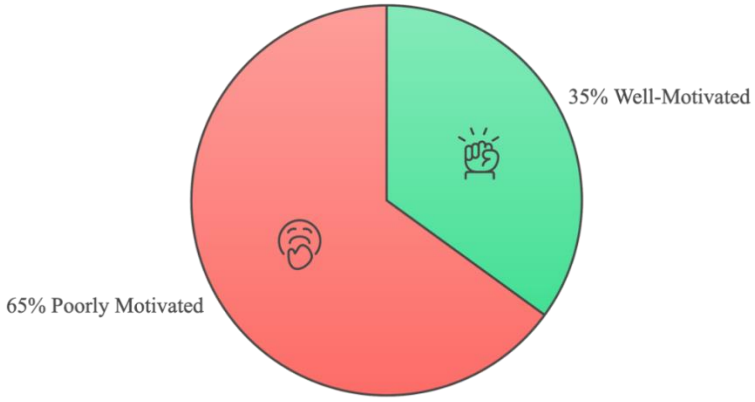

Fig. 2: Motivation Levels Among Respondents.

The analysis of the data obtained in the pre-experimental section of our experiment allows us to record the predominance of medium (55%) and low levels (45%) of the formation of professional competence among students of higher education majoring in social interaction specialty using artificial intelligence technologies with sufficient confidence (Fig. 3).

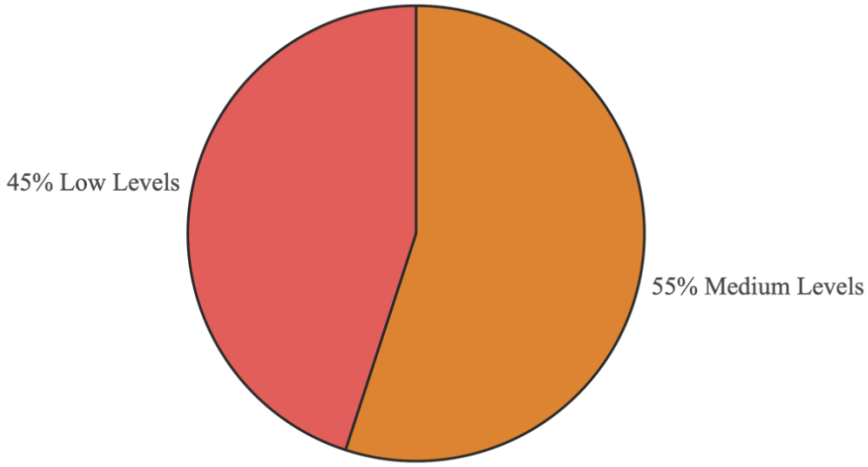

Fig. 3: Distribution of Professional Competence Formation Levels Among Students in the Social Interaction Specialty

Based on the tasks we developed and selected to build professional competence among higher education students in the social interaction specialty, we collected digital resources using artificial intelligence technologies: e-books, publications on artificial intelligence, computer games based on emotional artificial intelligence, and art videos on emotional artificial intelligence.

The work done during the experiment provides grounds for the following statement.

"General (cognitive) psychology" for psychology students during 2017-2019:

- The acquired knowledge contributed to students' opportunities for professional competence in higher education graduates of the social interaction specialty, using artificial intelligence technologies, and to a clearer understanding of the concepts of "intelligence" and "artificial intelligence", as well as awareness of one's own professional abilities.
- The process of acquiring knowledge about emotional artificial intelligence contributed to the discovery of creative possibilities.
- Independent preparation of the author's projects by students, along with their presentation, stimulated the development of professional competence among students of higher education majoring in the social interaction specialty using artificial intelligence technologies.

According to the results of the formative experiment in EG, we observe a change in indicators of low motivation (from 45% to 15%) in the formation of professional competence among students of higher education in the social interaction specialty using artificial intelligence technologies, with a simultaneous decrease in the control group (CG) of the study of average motivation. In this group, no significant needs were observed in the desire to acquire knowledge according to the specialty profile. EG respondents showed a steady decrease in low motivation to use artificial intelligence technologies. In the CG, we observe a decrease in general motivation to develop professional competence among students of higher education in the social interaction specialty using artificial intelligence technologies and, more generally, in learning in the higher education environment.

During the experimental work, it was proven that in the technological component, the priority use of the methodical system for the formation of professional competence in higher education students of the social interaction specialty using artificial intelligence technologies creates conditions for increasing experience and increasing personal activity of informational tasks of the professional activity of specialists in the social interaction specialty specialty using artificial intelligence technologies. In the dynamics of low motivation indicators and the formation of professional competence among higher education students, general patterns are evident – psychological and pedagogical profiles. It was established that, among students majoring in the EG, the dynamics of indicators of motivation for the use of artificial intelligence technologies show a statistically significant increase. It should be noted that the level of professional competence formation among students of higher education at the CG shows a downward trend, indicating a low intensity of methodical support and information content provision. There is a tendency to increase the intensity of the formation of professional competence among higher education students. The high motivation of respondents in CG, as indicated by the training program results, is characterized by specialization of the profile, which increases the level of professional competence among higher education students ($t = -2.23$; $p = 0.03$).

The results of the study of the dynamic characteristics of the formation of professional competence in students of higher education in the social interaction specialty using artificial intelligence technologies, unconscious motivational activity of respondents, show that the expression of the indicator of motivation in students of education varies depending on the technologies of artificial intelligence and the specifics and needs of training.

A feature of the formation of professional competence in students of higher education majoring in social interaction specialty using artificial intelligence technologies during the study by students of professional disciplines in institutions of higher education is the property of educational platforms, with the set goal to use the results of training to achieve the set goals, to correctly interpret external data, to learn from such data, including through interaction with the surrounding society, which corresponds to the profile of the specialty. Such a property of implementing the educational process of a higher school and increasing the levels of formation of professional competence among students of higher education contributes to its development through methods and algorithms, the work of which is possible thanks to equipment for the use, collection, and calculation of data, interaction, and influence on the surrounding society, communications with other platforms.

We assessed the growth of professional competence among higher education students majoring in social interaction using artificial intelligence technologies and Pearson's χ^2 homogeneity test.

The initial states of EG and CG coincide, but the final states differ. The reliability of the difference in the characteristics of EG and CG after the completion of the experiment meets the requirements of statistical research.

The practical significance of the results lies in their direct applicability to improving the use of artificial intelligence in the training of social interaction specialists at institutions of higher education.

During the experiment, the target, substantive, and procedural components of specialists were implemented, and the effectiveness of the ways identified by us was verified. The use of artificial intelligence in the training of social interaction specialists in institutions of higher education

The results of the experimental study confirmed the applicability, optimality, and effectiveness of the proposed approaches to using artificial intelligence in the training of social interaction specialists at institutions of higher education.

The reliability of the results is ensured by the scientific and methodological basis of the research, the correspondence of the research methods to the goal and tasks, the comprehensive approbation of the main provisions, the pedagogical experiment, the result of its statistical processing, and the implementation of ways to use artificial intelligence in the training of social interaction specialists in institutions of higher education.

The obtained research results should be used to organize the educational process and improve the methodical work of scientific and pedagogical workers in the design of professional disciplines in the specialty, as well as in the writing of monographs, various scientific studies, etc.

5. Conclusion

The content, essence of the concept, and advantages of artificial intelligence are revealed. The main properties of artificial intelligence are highlighted, and measures have been developed to address potential problems in successfully integrating artificial intelligence tools into the educational process for training social interaction specialists. The most effective proposals for introducing artificial intelligence into the higher education curriculum are documented. Examples and approaches to training future social interaction specialists in artificial intelligence are provided. Recommendations for the use of artificial intelligence in the training of future social interaction specialists are grouped.

To develop professional competence in artificial intelligence technologies among higher education students, we engaged students in the social interaction specialty. All participants, aged 18-25 years, provided consent for the study before its start and were informed about the conditions of participation in the questionnaire.

The respondents were offered questions related to the essence and advantages of artificial intelligence, approaches to the use of artificial intelligence in the training of specialists, the main properties of artificial intelligence, measures to address potential problems for the successful integration of artificial intelligence tools into the educational process for specialist training, and their own level of motivation regarding the study and use of artificial intelligence technologies by higher education students majoring in social interaction specialty. We assessed the growth of professional competence among higher education students majoring in the social interaction specialty through artificial intelligence technologies using Pearson's (χ^2) homogeneity test.

The initial states of EG and CG coincide, but the final states differ. The reliability of the difference in the characteristics of EG and CG after the completion of the experiment meets the requirements of statistical research.

The prospects for further research on the problem of the formation of professional competence in higher education graduates of social interaction specialists using artificial intelligence technologies include the introduction of cluster technologies, simulation technologies, computer modeling tools, elements of mobile and geo-information systems, comparative analysis of available foreign technologies for training specialists into the educational process, etc.

References

[1] Zaitaseva, D. (2022). Editorial: Artificial intelligence as a new form of life: digital evolution in writing. Amazonia Investiga, 11(60), 7–9. https://doi.org/10.34069/AI/2022.60.12.0.

[2] European Commission. (2022). Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for educators. Publications Office of the European Union.

[3] Morrisroe, A., & Gaebel, M. (2023). The future of digitally enhanced learning and teaching in European higher education institutions. European University Association. https://www.eua.eu/publications/reports/the-future-of-digitally-enhanced-learning-and-teaching-in-european-higher-education-institutions.html.

[4] Shevchenko, L., Umanets, V., & Rozputnia, B. (2024). Use of artificial intelligence technologies in the educational process of professional designer training. Electronic Scientific Professional Journal "Open Educational E-Environment of Modern University", 16, 229–239. https://doi.org/10.28925/2414-0325.2024.1615.

[5] Derevyanko, S. (2021). Emotional artificial intelligence in professional training of future psychologists. Information Technologies and Learning Tools, 81(1), 192-209. https://doi.org/10.33407/itlt.v81i1.3281.

[6] Androshchuk, A., & Maluga, O. (2024). Use of artificial intelligence in higher education: state and trends. International Science Journal of Education & Linguistics, 3(2), 27–35. https://doi.org/10.46299/j.isjel.20240302.04.

[7] Plahotnik, O. V. (2019). Practical use of artificial intelligence in criminal proceedings. Criminal Jurisdiction Bulletin, 4, 45-57. https://doi.org/10.17721/2413-5372.2019.4/45-57.

[8] Viznyuk, I., Buhlai, N., Kutsak, L., Polishchuk, A., & Kylyvnyk, V. (2021). Use of artificial intelligence in education. Modern Information Technologies and Innovation Methodologies of Education in Professional Training Methodology Theory Experience Problems, 59, 14-22. https://doi.org/10.31652/2412-1142-2021-59-14-22.

[9] Godunova, A., & Tolochko, S. (2023). Monitoring study of teenagers' perception of technologies with artificial intelligence. Prospects and Innovations of Science, 12(30), 185-195. https://doi.org/10.52058/2786-4952-2023-12(30)-185-195.

[10] Marienko, M., & Kovalenko, V. (2023). Artificial intelligence and open science in education. Physical and Mathematical Education, 38(1), 48–53. https://doi.org/10.31110/2413-1571-2023-038-1-007.

[11] Shuliak, A., Hedzyk, A., Tverezovska, N., Fenchak, L., Lalak, N., Ratsul, A., & Kuchai, O. (2022). Organization of educational space using cloud computing in the professional training of specialists. International Journal of Computer Science and Network Security, 22(9), 447-454.

[12] Kolomiets, A., & Kushnir, O. (2023). Use of artificial intelligence in educational and scientific activities: Opportunities and challenges. Modern Information Technologies and Innovation Methodologies of Education in Professional Training Methodology Theory Experience Problems, 70, 45-57. https://library.vspu.net/server/api/core/bitstreams/3c3c63e2-32d8-41f1-bc3f-2e08304693f1/content.

[13] Fathoni, A. F. C. A. (2023). Leveraging generative AI solutions in art and design education: Bridging sustainable creativity and fostering academic integrity for innovative society. E3S Web of Conferences, 426, 01102. EDP Sciences. https://doi.org/10.1051/e3sconf/202342601102.

[14] Viznyuk, I. (2019). Introduction of the PCCBP in educational and informative Macromedia Flash distance learning environment. Technologies of Intellect Development, 3(24). https://doi.org/10.31108/3.2019.3.3.2.

[15] Oseredchuk, O., Nikolenko, L., Dolynnyi, S., Ordatii, N., Sytnik, T., & Stratan-Artyshkova, T. (2022). The usage of modern information technologies for conducting effective monitoring of quality in higher education. International Journal of Computer Science and Network Security, 22(1), 113–120. http://paper.ijcsns.org/07_book/202201/20220117.pdf.

[16] Shetelya, N., Oseredchuk, O., Cherkasov, V., Kravchuk, O., Yarova, L., & Kuchai, O. (2023). Competency approach in preparing professionals in an innovative educational environment in higher education. Revista Conrado, 19(S3), 298-307. https://conrado.ucf.edu.cu/index.php/conrado/article/view/3512
[17] Alzahrani, A. (2022). A systematic review of artificial intelligence in education in the arab world. Amazonia Investiga, 11(54), 293–305. https://doi.org/10.34069/AI/2022.54.06.28.
[18] Stratan-Artyshkova, T., Kozak, Kh., Syrotina, O., Lisnevska, N., Sichkar, S., Pertsov, O., & Kuchai, O. (2022). Formation of new approaches to the use of information technology and search for innovative methods of training specialists within the Pan-European educational space. International Journal of Computer Science and Network Security, 22(8), 97-104.
[19] Dotsenko, I. O. (2017). Actual problems of the implementation of information and communication technologies in higher education. Mining Bulletin: Scientific and Technical Collection, 102, 117-120. http://iomining.in.ua/wp-content/uploads/GV/GV102.pdf.
[20] Tiuria, Y., Pochtovyi, M., Medytskyi, I., Mykytyn, Y., & Kryvenko, O. (2022). Features of legal support of artificial intelligence in the Asia and Pacific region. Amazonia Investiga, 11(60), 129–134. https://doi.org/10.34069/AI/2022.60.12.13.
[21] Puhach, S., Avramenko, K., Michalchenko, N., Chychuk, A., Kuchai, O., & Demchenko, I. (2021). Formation of Specialists' Legal Competence in the System of Life Long Education. Revista Romaneasca Pentru Educatie Multidimensionala, 13(4), 91-112. https://doi.org/10.18662/rrem/13.4/472.