



THE INFLUENCE OF INFORMATION TECHNOLOGY ON THE PROFESSIONAL AND PERSONAL DEVELOPMENT OF A FUTURE TEACHER

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ABSTRACT

The article discusses the features of the use of modern information and communication technologies by teachers of general education institutions. In modern conditions, the role of a teacher in educational institutions has seriously transformed. The teacher has ceased to be the only source of information for his students. Now he has to compete with other educational resources, Internet technologies, in order to remain interesting to his students. The author examines the teacher's involvement in the Internet environment and determines his activity in the use of information and communication technologies.

Introduction. The formation of an integral system of pedagogical knowledge, the development of a value-based attitude to professional activity, the development of pedagogical thinking as a way of identifying and solving specific pedagogical problems, the formation of the subjectivity of the future teacher require the search for optimal technologies for solving the identified problems. The currently intensifying trend of informatization of education actualizes the need to identify the value potential of information technologies, develop approaches to its implementation, and study the dynamics of the professional and personal development of the future teacher in the context of using educational software.

In the modern understanding, educational information technology is a pedagogical technology that uses special methods, software and hardware (cinema, audio and video equipment, computers, telecommunication networks) to work with information.

Literature analysis and methods

The research of the scientists in the field of application of information technologies in education examines the issues of modeling and technologization of training, programmed training (Yu. K. Babansky, V. P. Bepalko, V. S. Gershunsky, I. Ya. Lerner, N. D. Nikandrov, N. F. Talyzina and others); fundamental provisions in the field of psychological and pedagogical aspects of the use of information technologies (A. G. Gein, I. G. Zakharova, A. P. Ershov, M. P. Lapchik, A. A. Leontyev, E. A. Mashbits, V. M. Monakhov, N. I. Pak, E. S. Polat, I. V. Robert, V. F. Sholokhovich,

etc.); problems of using multimedia in the educational process of secondary schools and universities (A. L. Denisova, Yu. N. Egorova, N. V. Klemeshova, I. I. Kosenko, O. V. Lobach, O. G. Smolyaninova, V. A. Starodubtsev, G. M. Champaner, etc.).

Information technologies (for example, multimedia and hypermedia systems) make it possible to more effectively and at a qualitatively new level implement the pedagogical principle of clarity and at the same time significantly enrich the student's emotional and sensory experience.

Analyzing changes in the didactic landscape, its expansion due to the widespread penetration of information technology into the field of education, researchers note the need to develop new approaches to the creation of visual teaching aids, while using the term "intellectual visibility."

It seems to us appropriate for teaching aids that reveal the essence of what is being studied through the logical or genetic relationship of facts and theories, the mosaic construction of fragments of pictures of the world, the ascent from the abstract to the concrete and back.

"Intellectual visibility" generates new images, creates new visual forms that carry a certain semantic load and makes pedagogical knowledge visible.

Results

In the process of our experimental work, we used visual aids, which, in addition to illustrative ones, also perform a cognitive function: flowcharts, supporting notes, images, tables, diagrams, classification schemes, diagrams of relationships between pedagogical concepts, circular diagrams, classification trees and other graphic images that complement verbal information. This visibility carries a significant didactic load and actually organizes the cognitive activity of future teachers, promotes comparison, comparison, generalization, highlighting the main thing, revealing associative connections, and significantly influences the formation of an integral system of pedagogical knowledge.

Information technologies make it possible to implement at a qualitatively new level the ideas of systematicity and structural-functional coherence of the presentation of educational material. The design of computer training programs based on the principles of integrativity, nonlinearity, modularity, multimedia, interactivity, structured redundancy, including multi-level and multi-dimensional content and activity components, interconnectedly determine the possibility of a systematic representation of general professional knowledge.

The hypertext structure of training programs allows the user to quickly access information fragments that have different value and semantic content, reflects the relative position and connection of these fragments, and ensures their systematic interaction. We base the design of hypertext content on the idea of the interconnection and interdependence of various fields of science and culture, the boundaries between which are not absolute. "Integration of all spheres of consciousness is a categorical imperative for the integration of all areas of science and art. What is happening is not a merger, but an interaction, a mutual absorption of different fields of science in the interests of jointly solving complex problems of training, education and development, each of which is studied by a special scientific discipline only in one aspect" [1, p. 69].

Hypertext integrates interdisciplinary relationships between psychological, pedagogical, humanitarian and methodological disciplines to the maximum degree of unity. The result of a student's mastery of a systematically organized hypertext is a holistic awareness, understanding and experience of meaning, as well as the goals of pedagogical activity as human-creative, methodological readiness for its implementation.

An electronic textbook allows a student to independently carry out the process of developing knowledge, master the structure of semantic connections, the sequence between which reveals the mechanisms of development and functioning of the object being studied as a whole. This logic of development requires the assimilation of knowledge in those types and forms that are adequate to the professional activity of the future teacher.

The design of educational programs based on multimedia technology makes it possible to present the content of pedagogical disciplines in various forms (text, audio, computer graphics, photographs, digital video materials, animation, etc.). Multimedia components recreate the content of general professional knowledge as complex (synthesized) information, develop students' ability to multisensory (multi-sensory) perception, analysis and synthesis of educational material, have a significant emotional and sensory impact on the value-semantic sphere, create an "effect of presence", involvement future teacher with current problems of modern school. The perception and rethinking of educational material is carried out at a higher level of mental activity, which contributes to the deep and systematic assimilation of knowledge.

Based on the principle of multimedia (V.A. Starodubtsev), we believe that the synthesis of various forms of information presentation and the artistic and aesthetic presentation of pedagogical ideas in combination have a significant emotional and psychological impact on the future teacher and is an effective means of influencing the positive development of his value-based semantic sphere.

The results of experimental work indicate that this potential can be realized, first of all, by multimedia information that demonstrates to future teachers various aspects of professional pedagogical activity. Capturing the real processes of school life and unexpected turns in the development of its events is possible only with the help of special information means.

Information technologies make it possible to demonstrate to students of a pedagogical university objects, processes and phenomena that are inaccessible for direct observation. Digital photography makes it possible to record a variety of pedagogical phenomena for subsequent analysis, which are sometimes impossible for a teacher to characterize using verbal methods (for example, to convey through speech the entire richness of a student's emotional life). A series of videos depicting various emotional states of a child: horror, fear, joy, grief, pain, etc., opens up wide opportunities for the future teacher to analyze, learn and understand his personality. A series of historical photographs contains a different meaning, for example, depicting the life, everyday life, and activities of the colony named after M. Gorky and the commune named after F. E. Dzerzhinsky, the appearance of individual students. These photographs have the value of historical documents.

The synthesis of graphic information and sound creates a psychological “foundation” for the future teacher to develop a diverse range of feelings and experiences. In this regard, a deep restructuring takes place in the student’s value-semantic sphere, giving rise to humanistic values of a different, higher order, stimulating a qualitatively different, higher level of professional and pedagogical activity.

Digital video fragments have the greatest potential for the impact of information technology on the positive dynamics of the value-semantic sphere of future teachers. In the experimental work, we used video materials from television programs, video fragments reflecting research activities in the field of pedagogy, didactics, teaching methods of individual subjects, documentary footage about modern school, fragments of video recordings of lessons from practicing teachers, innovative teachers, etc. Digital video fragments are the most informative are rich, allow you to compensate for the lack of life and teaching experience or partially replace the student’s existing experience. The combination of an audio-visual image, the demonstration of digital video materials with a specific target setting create the prerequisites for increasing the emotionality of the educational process, the effectiveness of mastering pedagogical concepts, laws, the development of pedagogical thinking, and also introduce new semantic content into the educational and professional activities of future teachers. Implementation of the principle of visibility at a qualitatively new level, demonstration of objects and pedagogical phenomena of reality allows the future teacher to discover differences and similarities between the objects under study, determine their common characteristic features, update existing knowledge and life experience, generalize their observations, formulate laws and rules to which they are subject. these pedagogical phenomena. “Reprocessed” and meaningful impressions turn into concepts and abstract generalizations, knowledge acquires personal meaning.

The inclusion of elements of video art in the content of pedagogical disciplines allowed us to influence the dynamics of the value-semantic sphere of the future teacher through the mechanisms of transformation, introjection, identification, empathy, and reflection. The interaction of future teachers with art of this kind is permeated with sympathy, compassion, empathy with the unique world of children's joy and sadness.

Our experience shows that studying pedagogical reality through art opens up the opportunity for future teachers to know (experience) what cannot be investigated by scientific and experimental methods, and in this sense, art - as a form of knowledge of the surrounding world - is much richer than all scientific ways of knowing reality combined. For example, using scientific methods it is impossible to acquaint future teachers with the experience of pain, pleasure, joy, uncertainty, despair of a child, etc. The opportunity to “penetrate” into the inner and unknown child’s world opens up for future teachers an artistic experience that arises in the process of dialogue with art.

The peculiarity of perceiving a feature film as a work of art is that in this case an “image” of the work that is valuable for the future teacher is formed and its personal meaning is comprehended. It should be noted that the formation of personal meaning is characteristic of human activity in general, which consists of consuming various manifestations of culture and transforming them into personally significant ones. However, the formation of personal meaning when perceiving works of art follows from the intended purpose of the latter. Artistic

experience acts here as the “space” in which personal meaning is born. “Perception presupposes the complex mechanics of correlating the personal experience of the recipient with the socio-cultural context of the work. In the process of perception, the subject, as it were, rises to the aesthetic and moral horizon proposed in the work of art, grasping the semantic layer in the experience, assimilating the artist’s life experience embodied in the work” [3, p. 22].

An artistic representation of a pedagogical situation allows one to emotionally experience and feel this situation, evokes a feeling of belonging, and encourages the search for the optimal pedagogical impact on the unique personality of the child. On this basis, the desire of future teachers to form a dynamic value basis for solving complex and contradictory problems of a modern school and for developing new meanings of professional activity increases.

Discussion

Information technologies provide the opportunity to simulate the professional pedagogical activity of a future teacher by constructing a software algorithm based on simulating the stage-by-stage development of the pedagogical process, searching for the most optimal behavior of a teacher who becomes a participant in various situations of interaction with students. Offering various options for solving pedagogical situations, the computer program simulates the further course of the educational process depending on the answer chosen by the student. In the process of functioning of the computer program, the real pedagogical system is replaced by a simulated one, reproducing only the most necessary elements and relationships, on which the formation and preservation of system quality and the achievement of educational goals primarily depend. An artificially created pedagogical system becomes a direct object of research for the future teacher. Such a substitution does not violate the usual logic of cognition of pedagogical phenomena, since the student directly operates not with the events of real school reality, but with secondary objects, images that take the form of descriptive computer models.

Computer modeling creates conditions for the student to foresee specific paths, means, operations, criteria for the effectiveness of educational interventions taken, expand ideas about the future profession, improve practical knowledge and skills in the field of pedagogy, stimulate the restructuring of pedagogical thinking, and also provide an opportunity to improve the system of individual training and professional -personal development of the future teacher.

Conclusion

The results of our theoretical and experimental research indicate that information technologies, having a wide range of multimedia, interactive and technical capabilities, make it possible to influence the formation of holistic pedagogical knowledge of the future teacher, due to the content, consistency and structural and functional coherence of electronic educational material; multimedia presentation of various types of information; opportunities to study pedagogical objects and phenomena in movement and development; demonstration of pedagogical processes and situations that are not available for direct observation. The development of the value-semantic sphere of a teacher training university graduate is carried out on the basis of creating an emotional and sensory context for the content of electronic information, multisensory perception of pedagogical knowledge, stimulating comprehension of the process and result of educational and professional activity, subjective ways of its implementation using a computer. Computer modeling of probabilistic algorithms of

professional behavior of a future teacher, design of virtual methods of pedagogical influence, computer simulation of the course of a real educational process and its results, design of tasks and questions of problematic content stimulate the development of professional pedagogical thinking and the formation of a professional image of the world.

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