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**THEORETICAL FOUNDATIONS OF THE DEVELOPMENT
AND IMPLEMENTATION OF MULTIMEDIA EDUCATIONAL SYSTEM
OF THE DISCIPLINE “PROFESSIONAL PEDAGOGY”**

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Theoretical Foundations of the Development and Implementation of Multimedia Educational System of the Discipline “Professional Pedagogy”

The article focuses on the theoretical foundations of development and implementation of multimedia educational system of lecture course of the discipline „Professional Pedagogy” aimed to improve students' educational and cognitive activity. The contradictions between the objective needs of educational process in engineering and pedagogical university in the spread of implementation of the means of computer and information technologies and the absence of theoretical foundations and methodological approaches to develop and use multimedia educational systems, able to provide activation of educational and cognitive activity not only during the practicums, but during the lectures on professional pedagogy as well. Information technologies are proved to be useful for their further introduction to educational process. Their influence is expected to be wide-spread in accordance with universal development of computer and information technologies.

Key words: multimedia educational systems, educational process, computer and information technologies, lecture course.

Multimedia learning originates from media education, which represents a new direction in teaching, encouraging the study of laws of mass communication (press, television, radio, film, video, etc.) The main objectives of media education – to prepare the younger generation for the modern information age, the perception of different information, teach a man to understand it, realize the consequences of its impact on the psyche, master means of communication on the basis of non-verbal forms of communication through technical means [8].

Multimedia technology in the education system is relatively new phenomenon and has not been fully studied. So far, some aspects of the study and use of

multimedia technologies in educational process were reflected in the works: the use of multimedia technology in the process of teacher training – Kosenko I. I., Smolyaninov O. G., Tumalev A. V., creating multimedia educational purposes – Belitsyn I. V., Kastornov V. A., Kravtsov S., Mantorov I. V., Lobach O. V., Osin A. V., the application of multimedia technology in teaching – Anisimov N. S., Brown S., Klemeshev N. V., Muravlev D. P., Shampaner G. M., Shlykova O. V. Despite the undeniable value conducted in these areas of research, it should be noted that they did not fully solve the complex task of building and the use of multimedia training systems. Least studied are the methodological aspects, taking into consideration the peculiarities of teaching “Professional Pedagogy”. To our opinion, it is in the account of their specific instruction laid significant reserve increase psycho-pedagogical level of multimedia technology, employee training efficiency.

Currently, there are a number of studies (Velykanov S. S., Zaynutdinov L. H., Liskov V. Y, Ogorodnikov E. V., Pavlov L. V., Stashkevich I. R., Serousov I. Yu. etc.), confirming activation of educational-cognitive activity of students on practical and laboratory studies program and psychological and pedagogical possibilities of electronic educational purposes.

However, insufficiently elaborated methodological and technological issues of application of multimedia training systems lecture courses. Widespread adoption of information and communication technologies (ICT) in all spheres of activity of modern man necessitates the use of ICT in education. The need for application of multimedia learning systems in learning pedagogy professional lectures due to the fact that the initial formation of their own representation of the object (phenomenon) occurs in lectures, so it is at these sessions, primarily, should apply multimedia technology.

Frequently updated information on the legal framework of professional education in Ukraine can be optimally presented in lectures through the introduction of innovative technologies of multimedia. The urgent need for ICT provides endless opportunities for both teacher and students [1].

The aim of the article is to examine the theoretical foundations of creation and application of multimedia training systems of the lecture course “Professional Pedagogy”, providing increase of educational-cognitive activity of students.

Improving educational and cognitive performance through multimedia teaching system of the lecture course “Professional Pedagogy” is performed using the model developed increasing teaching and learning activities, reflecting the relationship software (visualization, animation, color, hypertext, multiple windows, manipulation, modeling, contamination, audiovisualization, interactivity) and psycho-pedagogical (visibility, accessibility, durability, emotional regulation, problem, redundancy, syncretism, reverse communications) capabilities of multimedia training systems and their impact on the activation of invariant components of learning and cognitive activities (targeted, need-motivational, meaningful, operationally-activity, emotional and volitional, control and adjustment, appraisal and efficiency) [2].

In summary, it should be noted that the problem of the article reflects the contradiction between the objective needs of the educational process in engineering pedagogical university in expanding use of information – computer technology and the lack of theoretical foundations and methodological approaches to the development and application of multimedia learning systems capable of intensifying the educational-cognitive activity not only on laboratory practical, but also lectures on professional pedagogy.

Perspective, technology is constantly evolving multimedia technologies that combine much information-communication tools for working with information [3]. Multimedia allows representing, processing and transmitting various types of information: sound, animation, video, computer graphics, tables, charts, etc. Using multimedia in the classroom in support of engineering and pedagogical high school brings with it a number of advantages, steadily affecting the quality of education in a positive way, namely:

- opportunity to realize didactic principle of visibility in a large volume,
- formation and skills to work with different kinds of information,
- development of broad cognitive abilities of students

- introduction of innovative technologies, and as a consequence, developing education,
- establishment of common competencies for future professionals
- educate information culture

Using multimedia helps implement effective threefold objective of the educational process in higher education: academic, developmental and educational [4]. A teacher holding multimedia technology, improves the quality of training in conducting training sessions for general education and special disciplines, as has the ability to:

- cover a large amount of the material being studied,
- use active learning methods
- demonstrate models of various objects and processes,
- use digital educational resources,
- form the skills to develop communicative abilities through special funds
- use new and innovative technology in the form of frequent change of activity of learners form various competence through the adoption of ICT.

Implementing multimedia technology requires modern computer system (hardware and software), multimedia projector, screen or interactive whiteboard, digital educational resources, which include presentations, interactive whiteboard software, digital video, audio files, photos and animations. It should be noted that modern electronic educational resources (Internet-sources, electronic disks and manuals, training and testing program, geographic information systems, databases, encyclopedias, reference and legal system) can be created directly with multimedia support [5].

Recently, there have appeared a variety of new tools to train nurses supported by multimedia computer, for example:

- computer modular simulators for gaining knowledge and skills of engineers and educators,
- electronic training CDs for the training course “Professional Pedagogy”,

- computer system, monitoring and recording skills to training on a training field.

Students show increasing interest in multimedia development and demonstration in the classroom. [6] The introduction of multimedia in the educational process has a positive effect on the overall level of development of students and helps to:

- identify creative activity of students,
- implement individual characteristics of students,
- express themselves as individuals,
- form information values,
- motivate information activity of students,
- make students interested not only in learning outcomes, but also the ability to develop their own projects,
- use the opportunities of self-development and self-realization [7].

Based on the above it can be concluded that the use of multimedia support discipline lecture course “Professional Pedagogy” improves the quality of training of future engineers and educators who meet the needs of the educational process engineering pedagogical university in expanding use of information - computer technology.

The considered IT technologies are promising for further implementation in the educational process, their influence will steadily grow with the widespread development of ICT. Modern training in engineering and pedagogical university is inextricably linked with multimedia computer facilities, without which it is difficult to imagine a modern holding a training session.

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Тен Є. П.

Теоретичні основи створення та використання мультимедійних навчальних систем дисципліни „Професійна педагогіка”

У статті розглянуто теоретичні основи створення та застосування мультимедійних навчальних систем лекційного курсу дисципліни „Професійна

педагогіка", що забезпечує підвищення навчально-пізнавальної діяльності студентів. Відображено протиріччя між об'єктивними потребами освітнього процесу інженерно-педагогічного вузу в розширенні використання засобів інформаційно-комп'ютерних технологій і відсутністю теоретичних основ і методичних підходів до створення і застосування мультимедійних навчальних систем, здатних забезпечити активізацію навчально-пізнавальної діяльності не тільки на лабораторно-практичних, а й на лекційних заняттях професійної педагогіки. Доведено, інформаційні технології є перспективними для подальшого впровадження в освітній процес, їхній вплив буде неухильно розширюватися з повсюдним розвитком ІКТ.

Ключові слова: мультимедійне навчання, медіообразование, дидактичні аспекти, активізація навчання.

Тен Е. П.

Теоретические основы создания и применения мультимедийных обучающих систем дисциплины „Профессиональная педагогика"

В статье рассмотрены теоретические основы создания и применения мультимедийных обучающих систем лекционного курса дисциплины „Профессиональная педагогика”, обеспечивающей повышение учебно-познавательной деятельности студентов. Отражены противоречия между объективными потребностями образовательного процесса инженерно-педагогического вуза в расширении использования средств информационно-компьютерных технологий и отсутствием теоретических основ и методических подходов к созданию и применению мультимедийных обучающих систем, способных обеспечить активизацию учебно-познавательной деятельности не только на лабораторно-практических, но и на лекционных занятиях профессиональной педагогике. Доказано, информационные технологии являются перспективными для дальнейшего внедрения в образовательный процесс, их влияние будет неуклонно расширяться с повсеместным развитием ИКТ.

Ключевые слова: мультимедійне навчання, медіаобразование, дидактические аспекты, активизация обучения.

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