

### Training of future teacher-psychologist for use of multimedia tutorials

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**Abstract.** In research determination of readiness of future teachers-psychologists to use of multimedia tutorials in which specifics of professional activity of future teacher are reflected is given. Criteria (existence of steady motives to application of multimedia tutorials at school are proved; depth and durability of scientific-theoretical knowledge of multimedia tutorials and techniques of their application at school; extent of mastering methods of use of multimedia tutorials for the solution of standard tasks of future teacher-psychologist) also allocated levels (high, average, low) readiness of future teacher-psychologist for use of multimedia tutorials. The Model of training of future teacher-psychologist to use of multimedia tutorials where the structure of professional competence of future teacher-psychologist as the expert in the field of use of multimedia tutorials is reflected is theoretically proved.

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#### Introduction

In the conditions of informatization of education creation and use of the new tutorials intended for the organization of work of trainees in the uniform educational environment and promoting improvement of quality of training is actual. It is possible to carry multimedia tutorials, i.e. the information sources containing graphic, text, speech, musical, video, photo and other information to such tutorials, provided in the digital form, directed on realization of the purposes and problems of modern education. Multipurpose multimedia tutorials give opportunity of placement of bigger volume of information; fast search and access to necessary information; objective and high-quality examination of the pupil; evident representation of many difficult phenomena and processes; uses of various graphic registration; simultaneous obtaining information.

In this regard the full solution of problems of informatization of education demands improvement of future teachers-psychologists training, training in their methods of work with modern multimedia tutorials.

The analysis of researches of Timothy Ellis [1, p.59], Asan, A. [2, p.21], Magdy F. Iskander, J. Corey Catten, Rex Jameson, Antony Jones and Albert Balcells [3, p.97], Nelunova, E.D. [4, p.82], Derek A. Muller, Manjula D. Sharma and Peter Reimann [5, p.278], Ann Marie Ryan and Paul R. Sackett [6, p.363], Wayne Bursleson, Aura Ganz and Ian Harris [7, p.21], Kolpakov, EV, Solodko T.A. [8, p.65], Emilia C. Lopez and Alberto M. Bursztyn [9, p.212],

Michelle M. Perfect and Richard J. Morris [10, p.1049], Izotov, I.V. [11, p.51], Sakenov, D. Zh. [12, p.1431], Schantz, E.A. [13, p.383] showed that there is a significant amount of the researches devoted to questions of professional training of future teacher-psychologist in the conditions of informatization of education.

It should be noted that specified works in Timothy Ellis's [1, p.59], Derek A. Muller, Manjula D. Sharma and Peter Reimann [5, p.278], Michelle M. Perfect and Richard J. Morris [10, p.1049], more the attention is paid to theoretical and methodical training of students on informatics that allows future teachers-psychologists to use further information technologies in educational process of elementary school. However in these researches questions of training of future teacher-psychologist to use of modern means of educational appointment, in particular multimedia tutorials weren't taken up. Thus, formation of readiness of future teacher to use of multimedia tutorials wasn't so far object of studying that allows to speak about relevance of research of this direction.

Relevance of research is defined by contradictions between:

– need of society for the teacher-psychologist capable effectively to carry out professional activity in the conditions of informatization of education and insufficient level of readiness of future teacher-psychologist to use of multimedia tutorials, the necessary for successful

realization educational, developing and educational purposes of educational process in school;

- need of readiness formation of future teacher-psychologist to use of multimedia tutorials and an insufficient readiness of this question in practice of the higher school.

In this regard the problem of research consists in need of disclosure of specifics of formation of readiness of future elementary school teacher to use of multimedia tutorials.

Research objective: development and experimental check of a technique of formation of professional readiness of future teacher-psychologist to use of multimedia tutorials in the conditions of school.

### Methods

Methods of research are determined by its purpose. In work the complex of methods corresponding to investigation phases is used: 1) the analysis of psychology and pedagogical, scientific, scientific and technical and methodical literature both domestic, and foreign authors on a research problem; 2) analysis of normative documents, including state educational standards of higher education; 3) modeling; 4) pedagogical experiment; 5) questioning, testing, analysis of products of activity of students; 6) data processing of experimental work by means of methods of mathematical statistics.

### Main part

Readiness of future teacher-psychologist for use of multimedia tutorials is the steady characteristic of the identity of the teacher, defining ability to solve the main professional pedagogical objectives means of multimedia tutorials in the conditions of the multisubject multifunctional pedagogical activity which purpose is training, education and development of children of school age.

Readiness of future teacher-psychologist for use of multimedia tutorials includes the following structural components:

- psychological, presented by the motives expressed by interests and requirements to use of multimedia tutorials, aspiration to professional self-improvement in application of multimedia tutorials in future pedagogical activity;

- scientific-theoretical, assuming set of subject, methodical knowledge which integrate the general and special knowledge in the field of use of multimedia tutorials at school;

- technological, expressed by a complex of abilities on the organization of training of school students with use of multimedia tutorials.

Formation of readiness of future teacher-psychologist to use of multimedia tutorials is carried

out step by step: at the first stage motivation creation to use of multimedia tutorials at school and realization of available competence in the course of professional pedagogical training is defining; at the second stage acquisition of experience of the solution of professional tasks of future teacher-psychologist of school by means of multimedia tutorials on the basis of the all-professional contents is provided; at the third stage there is an improvement of experience of the solution of professional tasks of future teacher of school by means of multimedia tutorials during studying of methodical disciplines.

The technique of formation of readiness of future teacher-psychologist to use of multimedia tutorials assumes application of productive methods of training (a method of projects, a method of the solution of expediently picked up tasks, etc.); use of modern technical and information tutorials (computers, multimedia projector, Internet resources, etc.); the organization of process of training on the basis of an optimum combination of collective, group and individual forms of educational activity of students. In the course of development of a technique of formation of readiness of future teacher to use of multimedia tutorials specific features of professional activity of the teacher of school are considered:

- the multiconcreteness caused by that the teacher-psychologist of school has to own the theory and a technique of teaching of a number of the subject matters relating to various areas of knowledge;

- the polyfunctionality, being expressed that the teacher-psychologist of school carries out some functions: training, education and development of school students; assistance of socialization being trained, to formation at them the general culture; pedagogical education of parents, regulation and coordination of educational influences of a family and school;

- the accounting of age features of school students assumes observance of certain psychology and pedagogical and methodical conditions, and as use of health saving technologies in the organization of teaching and educational process.

Levels of formation of readiness of future teachers-psychologists to use of multimedia tutorials: I. High; II. Average; III. Low.

Diagnostics of future teachers-psychologists readiness formation levels to use of multimedia tutorials assumes studying of a condition of its structural components and is carried out on the basis of the following criteria: I. existence of steady motives to application of multimedia tutorials at school; II. depth and durability of scientific-theoretical knowledge about multimedia tutorials and a technique of their application at school; III. extent

of mastering methods of use of multimedia tutorials for the solution of standard tasks of the teacher.

The maintenance of components of training of future teacher-psychologist to use of multimedia tutorials is presented in table 1.

**Table 1. The maintenance of future teacher-psychologist training components to use of multimedia tutorials**

Criteria	Levels	Components	Content of components
I,II,III	I,II,III	Psychological	The motives expressed by interests and requirements to use of multimedia tutorials, aspiration to professional self-improvement on application of multimedia tutorials in future pedagogical activity.
I,II,III	I,II,III	Scientific-psychological	Set of subject, methodical and technological knowledge which integrate the general and special knowledge in the field of use of multimedia tutorials at school: knowledge of typology of multimedia tutorials, features of stages of their development, knowledge of opportunities of software of development of multimedia tutorials, requirements imposed to multimedia tutorials, knowledge of methodical aspects of the organization of educational process at school with use of multimedia tutorials.
I,II,III	I,II,III	Operational-technological	Complex of abilities on the organization of school students training with use of multimedia tutorials: to set the training purposes with use of multimedia tutorials; to analyze multimedia tutorials; to select concrete multimedia tutorials; to make abstracts of lessons and nonlearning occupations with use of multimedia tutorials; to make and use electronic tests; to organize individual, group and collective work of children with use of multimedia tutorials on the maintenance of the subjects studied at school, etc.

Readiness for professional activity is the initial stage of formation of professional competence, therefore, for more effective formation of readiness of future teacher-psychologist to use of multimedia tutorials it is necessary to be guided by structure of professional competence of the teacher as expert in the field of use of multimedia tutorials. We allocated the following components of professional competence of the teacher-psychologist as expert in the field of use of multimedia tutorials:

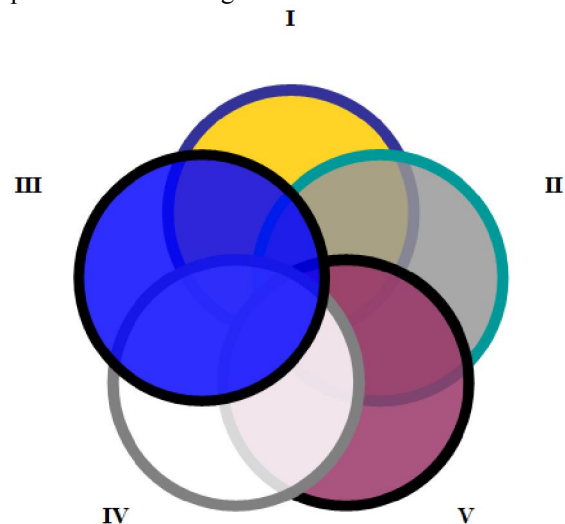
– key competence: – use of different types of information (information competence); – establishment and support of necessary contacts with other participants of educational process in various situations of communication connected with use of multimedia tutorials (communicative competence); – following to social norms of behavior in the situations connected with application of multimedia tutorials (social competence);

– basic competence: – selection of the multimedia tutorials directed on the solution of a specific professional objective; – analysis and assessment of multimedia tutorials; – creation of own elementary multimedia tutorials;

– special competence: – design of teaching and educational process in various subjects of school on the basis of multimedia tutorials; – the

organization of teaching and educational process at school with use of multimedia tutorials.

The maintenance of components of training of future teacher-psychologist to use of multimedia tutorials allowed us to design Model of training of future teacher to use of multimedia tutorials which is presented in drawing No. 1



**Figure 1. Model of future teacher-psychologist training to use of multimedia tutorials**

The explanation to drawing No. 1 Model of future teacher-psychologist training to use of multimedia tutorials:

I. – Components of future teacher-psychologist training to use of multimedia tutorials.

II. – The maintenance of components of future teacher-psychologist training to use of multimedia tutorials.

III. – Criteria.

IV. – Levels.

V. – Professional competence.

Skilled and experimental work was carried out under natural conditions pedagogical process during training of students (control group – a traditional technique, experimental group – an experimental technique).

At a stating stage of experimental work diagnostics was carried out by means of the techniques directed on studying of future teachers-psychologists readiness formation levels to use of multimedia tutorials. The assessment at students of level of readiness for use of multimedia tutorials in professional activity of the teacher was carried out by identification of levels of formation of psychological, scientific-theoretical, operational and technological components of studied readiness.

The diagnostic tools represent three blocks – according to structural to readiness components. Due to the diversity of results for convenience of processing of big data files and their reduction to uniformity the average value of readiness for use of multimedia tutorials was removed.

At the students who have made experimental and control groups, initial level of formation of readiness of future teachers to use of multimedia tutorials was revealed. Stating experiment showed that results of distribution on levels of achievement of readiness of future teachers to use of multimedia tutorials in experimental and control groups differ slightly and correspond generally to low level (73% of students of control group and 74% - experimental).

The purpose of forming experiment was approbation of the developed Model of training of future teacher-psychologist to use of multimedia tutorials taking into account specifics of activity of the teacher of school.

At the final stage of experimental work total levels of formation of readiness of future teacher-psychologist to use of multimedia tutorials were defined. Dynamics of future teacher readiness formation levels to use of multimedia tutorials and its components is presented in table 2.

**Table 2. Dynamics of students to use of multimedia tutorials (in %)**

Levels of readiness formation	Groups			
	Control		Experimental	
	Stating experiment	Control experiment	Stating experiment	Control experiment
High	0	9	0	59
Average	13	65	9	41
Low	87	26	91	0

Comparison of readiness formation levels for use of multimedia tutorials before carrying out forming experiment showed that in experimental group of 59% of examinees reached high level of readiness whereas in control group of this level reached only 9% of examinees. Thus, realization of the Model of preparation of future teacher-psychologist developed by us to use of multimedia tutorials taking into account specifics of activity of the teacher of school, allowed to raise considerably level of readiness for use of multimedia tutorials at future teachers-psychologists.

Thus, the carried-out experimental work confirmed the put-forward purpose on formation of readiness of future teacher-psychologist to use of multimedia tutorials.

### Conclusion

Results of a theoretical and pilot study allow to draw the following conclusions:

Need of the organization of purposeful training of future teacher-psychologist to application in professional activity of multimedia tutorials is caused by requirements of educational practice in the conditions of education informatization.

The reasonable structure of professional competence of the teacher-psychologist as expert in the field of use of multimedia tutorials formed a basis for development of Model of training of future teacher-psychologist to use of multimedia tutorials taking into account specifics of professional activity of the teacher of school (multiconcreteness, polyfunctionality, the accounting of age features of school students). Realization of the developed Model of training of future teacher-psychologist to use of multimedia tutorials allows to optimize process of professional training that is proved during experimental work.

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