Thus, research results make us conclude that electronic teaching manuals are highly appreciated by medical students. Low academic rate students actively use electronic teaching manuals. They are included into electronic manuals studying more actively than students with high results of educational activity. It can be explained, firstly, by low level of cognitive activity and , secondly, by great advantages of electronic manuals for students with poor results of studies. Medical faculty students consider electronic teaching manuals as irreplaceable components of university educational process, great instrument of information representation and visualization with great effectiveness in educational process individualization.

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THE APPROBATION OF MATHEMATICAL COMPETENCE MODEL IN MEDICAL SCHOOL E-LEARNING EFFICIENCY STUDYING

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To approbate suggested mathematical competence functional model, the e-learning process results of mathematical competence components development for clinical psychology faculty students were considered. According to research results, 90% of medical students got enough mathematical base for studying the other medical school disciplines, knowledge in math for solving professional activity tasks, high level development in each mathematical competence component to solve practical and theoretical problems. Thus, the suggested model allowed us to esteem the mathematics e-learning effectiveness in formation and development of students' mathematical competence as high.

The successful mathematical tasks solving requires three cognitive components possession: readiness and ability to analysis and synthesis; readiness and ability to abstract from insignificant properties and characteristics of objects; readiness and ability to generalization [3, 5, 6]. The mathematical competence model in three-dimensional space, based on main structural components, is easily realized in educational process to show real university students' mathematical competence development level and its separate components, providing studies of various factors influence on process of mathematical competence formation [1, 2, 4].

The approbation of functional components mathematical competence model in medical school e-learning efficiency studying is our research aim. Medical university clinical psychology students' mathematical competence was chosen as the research object. Materials and methods. The testing of second-year clinical psychology students was carried out. 10 second-year clinical psychology faculty students were involved into mathematical e-learning testing after passing the mathematical course examination. The research was held at 11 a.m. in the academic auditory. The research duration was about 50 minutes. The clinical psychology faculty students performed the testing independently without using any electronic devices. The testing was built on the basis of Atmhauer intelligence structure test including the scale of mathematical abilities determination and a questionnaire "Thinking type".

Results. To approbate suggested mathematical competence functional model, we consider e-learning process results of mathematical competence components development for clinical psychology faculty students. For this purpose we will take 100-grade scale for each mathematical competence structural component. The research results of clinical psychology faculty students' mathematical competence components development in e-learning process are represented in the table.

We build three-dimensional mathematical competence model based on the received results. Provided that $K_{1max} = K_{2max} = K_{3\ max} = 100$, sphere external radius $R_{external}$ is calculated as:

$$R_{external} = \sqrt[2]{100^2 + 100^2 + 100^2} = 173. \quad (1)$$

The magnitude of sphere internal radius $R_{internal}$ is found from expression:

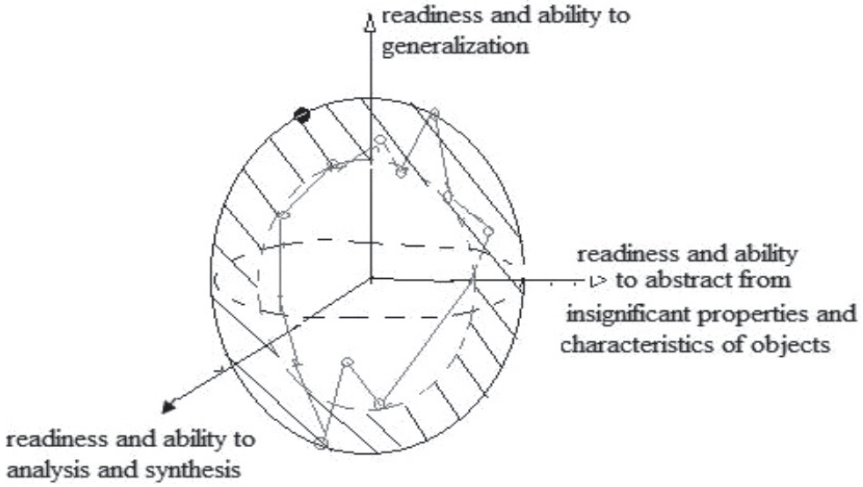
$$R_{internal} = 0{,}6\ R_{external} = 103. \quad (2)$$

The distance between internal and external radii can be calculated from the following formula:

$$d = 173 - 103 = 70. \quad (3)$$

Clinical psychology faculty students' mathematical competence components development in e-learning process

№ p/p	Main structural components of mathematical competence		
	K_1 – ability to analysis and synthesis	K_2 – ability to abstraction from objects' insignificant properties and characteristics	K_3 – ability to generalization
1	90	100	60
2	40	95	50
3	50	85	40
4	65	85	60
5	40	75	50
6	60	85	50
7	70	60	70
8	85	100	30
9	80	65	30
10	60	90	100



Mathematical competence model for clinical psychology faculty students. Note: the area designated by shading on the sphere designates the level of mathematical competence of pupils conforming to requirements of the federal state educational standard

This distance points medical school students' mathematical competence level corresponding to educational standard. The build mathematical competence model for clinical psychology faculty students is shown on figure.

From the figure, nine of ten points, indicating students' mathematical competence level, are located at the area of sphere shell. It means, that e-learning in 90 % cases results to students' mathematical competence level corresponding to educational standard. These students, as the result of e-learning, got enough mathematical base for studying the other medical school disciplines, knowledge in math for solving professional activity tasks, high level development in each mathematical competence component to solve practical and theoretical problems. And only one point, indicated students' mathematical competence level, is located out of the sphere shell. It means, that for 10 % of all students insufficient mathematical competence level was formed. That level is not corresponding to educational standard level. Two mathematical competence components from three were revealed. Thus, the suggested model allowed us to make the conclusion about medical school students' mathematical competence level, to esteem the mathematics e-learning effectiveness in formation and development of students' mathematical competence as high, to diagnose each mathematical competence component separately and all integrative characteristic in general. The model can be used to evaluate the mathematical competence development dynamics, to assess each mathematical competence component separately, to invent the effective mathematics teaching strategy.

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TO THE QUESTION OF LEARNING A FOREIGN LANGUAGE AT SCHOOL

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At the present stage of development of education it is supposed to change approaches to the definition of its content. The school system must help students not only acquire knowledge, abilities, skills, develop foreign language communicative competence, to understand the importance of foreign languages as a means of communication between people of different countries and communities, but also to solve a life, and learning problems.

At this time Russia every year integrates intensively into the world community, collaborating with other countries in the socio-economic sphere. In such circumstances, there is an increasing need to develop students' ability to use a foreign language as a communication tool in the dialogue of civilizations and cultures in the modern world. In the learning process socio-cultural and communicative development of students, preparing students to communicate in the field of school and post-secondary education as well as broaden their horizons and the general cultural level of the student take place.

In today's world of foreign language communication skills in speech and writing, in the field of business communication are essential. Consequently, the main objectives of the implementation of the learning content in school are the formation and development of communicative, linguistic and socio-cultural skills.

The culture of communication is the subject of study of many humanities: philosophy, pedagogy, psychology, linguistics and others.

The philosophical aspects of the culture of communication students is considered from the point of view of the problem with the ratio of public relations, activities and communication. These topics are covered in full in the papers L.P. Buoys, M.S. Kagan, V. Sokolova, V.M. Sokovnin, V.I. Stepinski [1].

The culture of communication is the unity of personality-major philosophical systems. It is value of human beliefs and behaviors that are consistent with the requirements of morality and etiquette. Consequently, the creation of the communication culture is a part of the process of moral education of the person. Special attention is paid to the formation of behavior and communication skills, their ethical content [2].

The problem of creating a culture of communication is due to the need to improve the quality of students as future professionals because the assimilation and use of universal, humanistic, ethical values by students and the realization of their right to communicate not only promote personal and spiritual development of the young person, but also the promote the social, professional potential.

Business communication of people in society is one of the most popular types of communication. The effectiveness of any activity – it is a consequence of the necessary possession principles of business communication.

It is known that the communicative learning a foreign language has a positive effect, particularly it affects the development of the human psyche functions, generalized abstract thinking. On this occasion, L.S. Vygotsky wrote: "Foreign language releases the speech thought from the captivity of specific linguistic phenomena". In the mind of the person who owns the only native language, the thoughts and the ways of their design are linked inextricably. Foreign Language enables us to understand that there are other connections between form and meaning, other ways of expression [3].

A foreign language has a beneficial effect on speech activity in the native language, culture and form of communication. When we form the speech skills in the foreign language, we contribute to the development of all levels of verbal ability learners: auditory, visual and motor sensations. Meaning reading helps to familiarize students with the genre, the main idea of the text by searching for information on the basis of jobs that provide an understanding of the text. Work on the text teaches thoughtful attitude to reading the book at all. Stories on the plan or drawing,