

# IMPROVEMENT OF CONTINUITY MODEL OF TEACHING INFORMATICS AND INFORMATION TECHNOLOGY SUBJECTS IN “SCHOOL-HIGHER EDUCATIONAL INSTITUTION” SYSTEM

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**Abstract:** *the article discusses the pedagogical aspects of the issue of development and implementation of a model of continuity in the teaching of Computer Science and information technology with a view to forming a unity in the system of the «school-higher educational institution», which contributes to the formation of a high-level information and communication competence of students.*

**Keywords:** *school, higher educational institution, PISA (international Student Assessment Program), Information Technology, innovative methods of teaching, model, integration, differentiation, coordination.*

A number of laws have been developed in order to strengthen cooperation between the higher education institution and the secondary school in order to increase the interest of students studying at the secondary school in science and profession in the Republic of Uzbekistan and to further increase the responsibility of teachers in this field (Minutes of the meeting of the administration of the president of the Republic of Uzbekistan dated August 28, 2019). The essence of these laws is that the rapid development of the material base of the information industry, informatization of various spheres of production and management, active access to the world information Community, High personnel and scientific and technical potential, readiness of the public mind to the need for in-depth knowledge in the field of computer technology and Information Technology.

The Ministry of public education has developed programs that reflect what a Modern School graduate should master in the basic Informatics course. The study of Computer Science in secondary school involves the discovery of it later as a basic science. The state standard of Informatics and information technologies prioritizes the active approach to the educational process, the development of general education and science skills with wide coverage among students, the methods of activity that make up cognitive, information and communicative competences (ICC). At the same time, in order to establish the priority directions of the systematic reform of extracurricular education in the Republic of Uzbekistan, to raise the moral and moral development of the growing younger generation to a qualitatively new level, to introduce innovative forms and methods of education into the educational process, was approved “The concept of development of the system of public education of the Republic of Uzbekistan till 2030” [1]. In this regard, the teaching of Informatics and Information Technology in school and university is becoming more relevant in terms of consistency and continuity. We developed our model based on the following paragraphs of the concept:

➤ By 2030, PISA (The Programme for International Student Assessment) was ranked among the first 30 countries of the world in the rating of the international program on assessing students' achievements in the field of Education;

➤ qualitative updating of the content of the system of continuous education, as well as training, retraining and professional development of personnel;

➤ improvement of teaching methods, step-by-step application of the principles of individualization of the educational process;

➤ introduction of modern information and communication technologies and innovative projects in the field of Education;

When developing the model, we assumed that the process being studied-training in computer science and it in the school-University system-should be considered as a single system, the condition for the functioning of which is the continuity of all elements. This model will make it possible to exclude the episodic, segmental nature of studying individual programs, so as to anticipate a gradual increase in the level of information and communication competence of pupils and students [4].

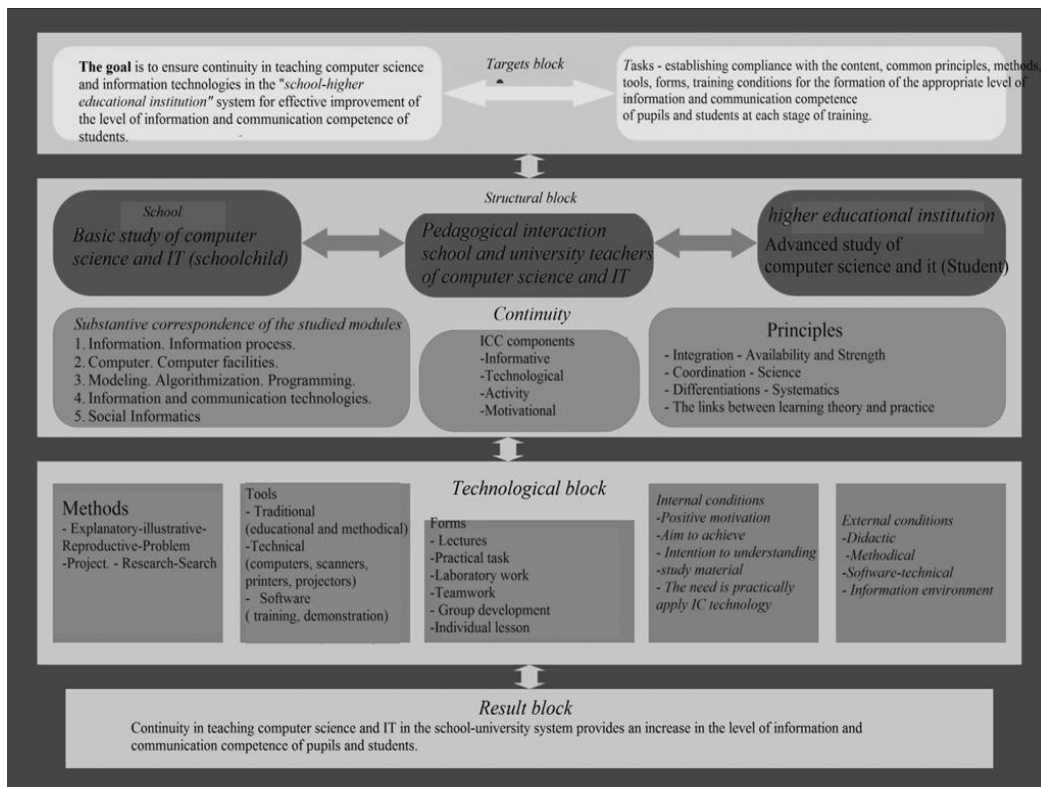


Fig. 1. The model of continuity in teaching computer science and information technology in the school-university system

**Conclusion.** A comprehensive analysis of the experimental work in the system "school-higher educational institution" showed that the most significant increase in ICC were observed in the first experimental group where teaching of Informatics and it was held as we developed the technology to ensure continuity in the system "school-higher educational institution". In this group, a larger number of students moved from the acceptable level to the optimal level of all the components of the ICC, which is confirmed by percentages and proved by statistical method. Summing up the results of experimental work, we can conclude that the presented theoretical model of continuity in teaching computer science and information technologies in the "school-University" system allowed us to prove the effectiveness of this model in practice, to get a significant increase in the level of information and communication competence of school pupils and students in the experimental group.

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