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THEORETICAL FOUNDATIONS FOR DEVELOPING PROFESSIONAL PEDAGOGICAL ACTIVITIES IN INFORMATICS TEACHERS

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Abstract: This article emphasizes the necessity of developing a methodology for the continuous professional pedagogical development of Informatics and Information Technologies teachers today, utilizing person-centered and synergistic approaches. The system for developing continuous professional pedagogical activities in Informatics and Information Technologies teachers is a complex, open, and dynamic system. Key factors influencing its evolution include modern and global education, the field of Informatics, information technologies, and the main aspects of developing the school curriculum.

Keywords: Informatics teacher, professional pedagogical activity, development, person-centered approach, synergistic approach, continuous education, information technologies, methodology.

Educational Reforms Based on Presidential Decrees and Resolutions:Resolution No. PQ-54 dated February 2, 2024, "On Additional Measures to Accelerate Reforms in the Field of Education." Decree No. PF-5712 dated April 29, 2019, "On Approving the Concept of Developing the Public Education System of the Republic of Uzbekistan until 2030." Decree No. PF-5847 dated October 8, 2019, "On Approving the Concept of Developing the Higher Education System of the Republic of Uzbekistan until 2030." Priority tasks defined in these documents include: qualitative renewal of the content of the continuous education system, training and retraining of professional staff, improving teaching methodologies, gradual implementation of individualization principles in the educational process, introduction of modern information and communication technologies (ICT) and innovative projects in public education, increasing the general level of digital technology usage for students, developing and systematically organizing the application of multimedia technology elements in education, improving Informatics teaching methods in general secondary schools, widely implementing the "One Million Programmers" project in schools, organizing distance learning programs based on modern ICT, implementing the "E-MINBAR" platform which allows online monitoring and mastery of lectures and practical classes and their upload to electronic information carriers, and using "Cloud Technologies" in educational processes.

Necessity of Teaching Programming Languages and Developing Student-Learners' Thinking: Developing logical, algorithmic, creative, and cognitive thinking related to programming. Research on Teacher Training and Improving Educational Effectiveness: R.G. Isyanov: Emphasizes teaching, educating, and developing students in accordance with modern demands, while considering their individual characteristics, to nurture well-rounded, broad-minded, creative, capable individuals who can apply acquired knowledge to life, live and work according to the times, and possess cultural, ethical, respectful, and humane qualities, along with physical well-being. F.M. Zakirova: Developed virtual didactic cards, methodologies for teaching Informatics, and requirements for creating electronic educational resources. H.I. Khanbabayev: Developed requirements for future teachers to enhance their digital competence through effective use of ICT, including the ability to design and utilize lessons in the educational process, as well as the knowledge, skills, and attitudes (including abilities, strategies, values, and awareness) required for using ICT and digital information tools in practice. U.N. Nishonaliyev: Outlined the main stages of increasing the quality and effectiveness of teachers' pedagogical activities. O‘.Q.

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Tolipov: Conducted research on "Pedagogical Technologies for Developing General Labor and Professional Skills and Competencies in the Higher Pedagogical Education System," exploring the role of pedagogical technologies in developing professional skills and competencies in teachers and their important aspects of application in the educational process. K.A. Zayirov: Explored the polytechnic foundations of forming design-technological knowledge and skills in teachers based on the use of computer technology. Sh.S. Sharipov: Developed scientific directions for preparing future vocational education and labor education teacher-students for inventive activities. S.Kh. Abdullayev: Conducted scientific research on "Improving the Ergonomic Competence of Technology Education Teachers During the Qualification Improvement Process." M. Urazova: Researched the problem of improving the technology for preparing pedagogues for design activities. Research on Informatics Teaching Methodology: Conducted by N.N. Zaripov and M.R. Fayziyeva. N.N. Zaripov's dissertation, "Improving the Methodology of Using Programming Environments in Teaching 'Informatics and Information Technologies' (on the example of general secondary schools)," presented a methodology for teaching the "Creating Applications in Delphi Environment" chapter of the "Informatics and Information Technologies" subject for 10th-grade general secondary schools. This work developed game and simulator programs, visual and multimedia applications designed to teach working with the Delphi programming environment, performing mathematical calculations, and creating various applications, along with their usage methodology. Additionally, a collection of problems related to students' use of the Delphi programming environment and various applications was developed. M.R. Fayziyeva's dissertation, "Creating Adaptive WEB Systems for the Educational Process," improved the methodology of teaching the "WEB Programming" subject based on Web technologies. Her research developed Uzbek-language information-educational resources based on the enhanced content of the "WEB Programming" subject for an adaptive Web system in the educational process. It also created a software system for teaching that adapts to the student's knowledge level and allows remote learning using computer or mobile technologies. Furthermore, a remote test platform was implemented for conducting interim and final assessments for the "WEB Programming" subject as tests, serving to determine students' knowledge levels and automatically record them in an electronic journal.

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