WEB OF SCIENTIST: INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL
ISSN: 2776-0979, Volume 5, Issue 4, April - 2024

SOFTWARE AS A PEDAGOGICAL TOOL: PSYCHOLOGICAL AND PEDAGOGICAL BASIS OF IMPROVING THE QUALIFICATIONS OF INFORMATICS AND INFORMATION TECHNOLOGY TEACHERS

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Abstract
This article examines the psychological and pedagogical foundations of using software as a tool for improving the skills of teachers of informatics and information technologies. The ever-evolving nature of technology requires continuous professional development for IT educators. The article examines the theoretical frameworks supporting the use of software for this purpose, exploring the psychological and pedagogical benefits that empower teachers and ultimately improve student learning outcomes.

Keywords: Pedagogical software, teacher training, informatics and information technologies, educational technology, technology integration, psychological foundations, pedagogical foundations.

INTRODUCTION

The field of information technology is constantly developing. New advances are emerging at an ever-increasing pace, requiring a highly skilled and flexible workforce. This dynamic applies to the education sector, where teachers play an important role in equipping future generations with the necessary information technology literacy and skills. In particular, teachers of computer science and information technology are faced with the challenge of not only having a deep understanding of these emerging technologies, but also of effectively conveying this knowledge to their students.

This requires continuous professional development of information technology teachers. While traditional methods of teacher training are valuable, they do not fully satisfy the need for teachers to stay abreast of the latest developments. Here, software emerges as a powerful pedagogical tool with the potential to change the way information technology teachers are trained.

LITERATURE ANALYSIS

Pedagogical software tools can enhance learning, improve teacher-student relationships, and improve teacher competency in information technology. A. Richard Schwier, a well-known educational technology scientist, explored innovative approaches in his research. It should be noted that his "**Interactive Multimedia Learning: Using Social Media for Peer-to-Peer Learning in Single-Player Educational Games"**, explores how social media can be used in single-player games to promote peer-to-peer learning. This article emphasizes creating a more engaging and collaborative learning experience[4].

From researchers MD Roblier and JC King (2006): "**Educational psychology for interactive teaching"** Roblier and King explore the psychological underpinnings of technology use in education. They emphasize the importance of software design that provides active learning, motivation, and cognitive engagement [1].

PC Abrahamson (2008): Abrahamson's research focuses on the pedagogical aspects of technology integration in teacher education. His work emphasizes the need for careful planning and matching of software tools with specific learning objectives and different learning styles [2].

JA Banks (2009): Banks' research examines the challenges of technology integration in education. He identifies issues such as teacher comfort level with technology and access to resources as potential barriers to successful implementation of software tools in teacher education programs [3].

The introduction and use of information technologies (IT) in education attracts many researchers. The scientists of our republic carried out scientific and research work on the problems of teaching informatics and information technologies in the system of continuous education. In this regard, A.A. Abduqadirov, F.M. Zokirova, N.I. Taylakov, S.S. Gulomov, U.Yu. Yuldashev, R.R. Boqiev, A.G'. Hayitov, B.B. Mominov, U.I. Inoyatov, Sh.E. Qurbanov, R.Kh. Djuraev, M.A. Fayziev and others conducted scientific research.

The above studies show how software can facilitate active learning through simulations, games and interactive exercises. can help through their nature Pedagogically, software tools can respond to different learning styles and provide a personalized learning experience.

However, some difficulties appear in the literature. Software integration requires careful planning and pedagogical expertise to ensure its effectiveness. Additionally, access to technology and teacher comfort with software tools can be potential barriers.

DISCUSSION AND RESULTS

The integration of software tools expands the pedagogical role of teachers beyond traditional methods. It enables the use of multimedia, internet connectivity, dynamic software and networking to create a dynamic and engaging learning experience. The adoption of software tools improves teaching and learning by providing access to dynamic and engaging software, facilitating multimedia learning experiences, and assisting in the organization and management of learning activities.

Teacher training plays a crucial role in the effective use of software tools as a pedagogical aid. Pre-service and in-service teacher programs provide the necessary support and training to help teachers develop the skills and knowledge necessary for effective technology integration. Software tools have a significant impact on educational achievement. Research has shown that teachers' use of IT-based tools can affect teacher change, teacher knowledge, pedagogical beliefs, independence, creativity, flexibility, motivation, and teacher and student self-efficacy. positively affects variables such as self-efficacy.

Innovative methodological knowledge is important in improving teacher training. Software can improve teacher training programs in several ways:

1. Class management: Classroom management software helps teachers simplify everyday tasks like managing student behavior, facilitating classroom interactions, and encouraging good behavior in innovative and rewarding ways. These tools also give parents real-time access to their child's progress and behavior, eliminating the need to wait for parent-teacher conferences.

2.**Delivery and collection of information** : software tools can help deliver and collect data more efficiently. For example, teachers can use online platforms to upload and organize course materials, allowing students to easily access them. These platforms allow students to ask questions and get feedback from teachers, and parents can clearly see their children's performance. 2.

3.**Evaluation**: Grading software can simplify the process of writing grades, tracking assignments, and creating progress reports. These tools help save teachers time and effort, automate grading processes, and provide a centralized system for managing student assessments.

4. Professional development: Technology can support teachers' professional development by providing access to online curricula, resources, and collaboration

platforms. Online platforms and tools allow teachers to learn independently, connect with other teachers, and stay abreast of the latest pedagogical strategies and research.

Virtual classes: Online learning software such as video conferencing platforms can facilitate distance learning and create virtual classrooms. These tools allow teachers to teach remotely, communicate with students, and share learning materials Software tools can play a critical role in improving the skills of information technology (IT) teachers. By embracing and effectively using software as a pedagogical extension of their teaching approach, educators can go beyond traditional lecture and discussion formats and create dynamic and engaging learning experiences for their students.

CONCLUSION

In conclusion, software tools serve as valuable pedagogical additions for IT teachers. They can enhance the teaching and learning experience, improve educational achievement and contribute to the professional development of teachers. It is important for teachers to receive training and support in effectively integrating technology into their teaching practice.

The use of software as a pedagogical tool has a great impact on the competence of informatics and IT teachers. By integrating software tools into their teaching practices, educators can create dynamic and engaging learning experiences for their students. The adoption of software tools expands the pedagogical role of teachers and enhances the teaching and learning experience. It is important for teachers to receive training and support in effectively integrating technology into their teaching practice. The use of software tools has a positive effect on educational achievement and contributes to the professional development of teachers. In general, the integration of software as a pedagogical tool is important for improving the skills of informatics and IT teachers and improving student learning outcomes.

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