



Technology Integration in Primary Education: A Survey of Tools and Applications.

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ABSTRACT

This article's goal is to discuss the technological tools utilized in primary education and how they are really used to enhance the learning environment in primary schools. This chapter looks at how internet resources can help integrate ICT (information and communication technology) into primary education. A framework that gives schools an awareness of the most essential requirements for the successful integration of ICT in relation to the selection of a particular theme is presented before the priceless resources are mentioned. The tools that could facilitate the integration of ICT (information and communication technology) in primary education are examined in this chapter. Previous research discovered that teachers' technology integration practices in the classroom frequently did not reflect their teaching styles. The researchers concluded that this was due, at least in part, to external barriers that prevented teachers from using technology in ways that were consistent with their practiced teaching styles. Current ICT use in schools and the school's objective of providing a "good" education by focusing on the knowledge and skills of instructors are the key factors that affect.

Keywords: technology, integration, in-service teachers, professional development

1. Introduction

Technology is influencing every aspect of our lives, and education is one of the most important areas that must be modernized and developed in order to support the institution's overall growth. Understanding the importance of educational technology and its proper usage is also a requirement for institutions. A small portion of contemporary technology includes digital whiteboards, learning management systems, and other comparable technological tools. For the past three decades, educators and education researchers have been working to integrate technology into their practices. Over 35,000 articles and abstracts have been published about technology integration in education, reviewing current practices, recommending effective strategies, and restructuring policy, with a large portion of the articles discussing the nature of technology in the classroom.

According to Jared Keengwe and Grace Onchwari, even though technology has a lot of potential for improving education, many working teachers find it difficult to incorporate it into their lessons. Additionally, educators who successfully integrate educational technology into their lessons understand that while these tools can benefit students, they are not ends in and of themselves. Many parents understand the value of technology and how using it can help kids produce better work both inside and outside of the classroom (Kook, 1997).

The best way to benefit from technology is to incorporate it into the curriculum, rather than the other way around (Gooden 1996). Technologies are simply tools that facilitate learning. Tools are extensions of our human capabilities (Forcier and Descy, 2002). According to the International Society for Technology in Education (ISTE) (2000), teachers in today's classrooms must be prepared to provide their students with technology-supported learning experiences. Every teacher's professional repertoire must include the ability to use technology and understand how it can help students learn.

2. Challenges Related to Technology Integration

Based on extant literature, a significant proportion of educators are incapable of implementing technology in their classrooms efficiently, and others are reluctant to give it a shot because of fear, disinterest, or a lack of drive. Another major obstacle to technology integration efforts in schools, according to many teachers, is the use of ineffective technological leadership strategies (Duhaney 2001; Krueger et al. 2000). Teachers' attitudes and skills (Bitner and Bitner 2002), as well as a lack of time and funds and the link between technology training and the curriculum (Dvorak and Buchanan 2002), have all been identified as barriers to technology integration in the classroom. The early childhood teachers who attended the workshop reported a variety of challenges encountered during the process of technology use and integration, including a lack of personal familiarity with technology, a lack of administrative support, curriculum integration difficulties, and a lack of technical assistance.

2.1 Technology Use Versus Technology Integration

Although the teachers reported that their courses and lesson objectives would address the need for integrating technology into their curriculum, their classroom experiences and instructional narratives revealed the opposite.

Instructors can succeed in using technology as a teaching tool by acquiring some technology skills but not necessarily becoming experts in the field (Jonassen et al., 1999; Keengwe, 2007; Keengwe et al., 2008).

2.2 Background Work

How to successfully integrate technology to support student learning and encourage active participation in the teaching and learning process is the main challenge facing educators today (Bauer and Kenton, 2005). [1] According to research by Loyd and Gressard (1986), instructors' level of experience with computers is positively connected with their positive attitudes toward computers. Anxiety and fear tend to go down as one becomes more comfortable, while confidence rises. A teacher's level of confidence in using computers and related information technologies (often referred to simply as "technology") can have a significant impact on his or her ability to effectively implement technology methods in the classroom. Positive teacher attitudes toward computers are widely acknowledged as a prerequisite for the effective use of information technology in the classroom (Woodow, 1992). Educators are frequently resistant to using computer technology in the classroom. As a result, changing teachers' attitudes is critical to promoting technology integration (Marcinkiewicz, 1993–1994). Stevens (1980, as cited in Violato, Mariniz, & Hunter, 1989) identified teachers' attitudes and computer expertise as key factors in classroom computer adoption. Pelgrum and Plomp (as cited in Collis et al., 1996) concluded that teachers are the primary gatekeepers for allowing educational innovations to enter classrooms. As a result, one of the key factors in achieving computer integration in the school curriculum is the adequate training of teachers in handling and managing these new tools in their daily practices. [2] To fully accept technology integration in the classroom, the teacher must be a key stakeholder in the adoption process and help create an active learning process that will allow technology to take root and grow as an indispensable educational tool. [3]

3. Conclusion

It has been well established that technology is not a cure-all for improving classroom instruction (Ertmer, 2005), and within the classroom, an instructor must be able to use technology and connect it to the content (Pierson, 2001; Stobaugh and Tassell, 2011). Professional support is needed for effective technology integration, which can include administrative, peer, and technological support in schools.

4. References

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