USE OF ICT TOOLS IN SCHOOL EDUCATION

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ABSTRACT

In the previous two decades, venture in schools has expanded by more than a hundredfold. Much of this money has been spent on the notion that technology-mediated learning settings allow students to access for and analyse information, solve issues, communicate, and cooperate, so preparing them with the skills they need to succeed in the twenty-first century marketplace. Advanced technology is not just a new instrument that we utilise to make our lives better in the physical world, but it has also created an entirely new digital realm. We use multiple techniques to seek and supply information and resources, express ourselves, engage with the others, generate, consume, and play in this new world, often taking new and numerous identities. From playing online games and internet dating to e-learning and e-business, the digital world has a breadth equivalent to the physical world. At the very same time, the scale of participation in the digital world is enormous, and it is rapidly expanding.

KEYWORDS: ICT tools, Digital learning.

INTRODUCTION

Information has become pervasive, and computers have become cheaper and more powerful, thanks to the rapid growth of Information and Communication Technology (ICT). Many studies show that technology has the ability to boost student motivation, connect them to a variety of

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knowledge sources, encourage collaborative learning, and provide teachers more time to facilitate in the classroom (Moallem, 2003; Roblyer, Edwards, & Havriluk, 2004; Wilson & Lowry, 2000). As a result, many educators are concerned about incorporating ICT into education.

ICT integration can take place in three areas, as depicted in Figure 1, depending on the extent of information covered: curriculum (macro), topic (meso), and lesson (micro). ICT integration into a curriculum area typically necessitates ICT to support a larger amount of content knowledge, such as a full course covering a variety of topics in a certain discipline, such as science. Multimedia curriculum on CD-ROMs (Wang, 2001) or internet courses are examples of ICT integration. ICT can be utilised to cover certain subjects within a course in the topic area.

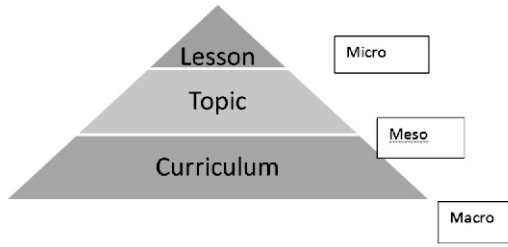

Figure:1

ICT INTEGRATION AS A CONCEPT

It is not a novel concept to include ICT into teaching and learning. It could be as old as radios or televisions, for example. However, with the swift development of emerging technologies, such as web technology, educators have become more interested in integrating ICT. Before getting into the notion of ICT integration, we'll go through the terms ICT and integration individually in this section.

ICT is, at its core, a tool. It can be hardware (computers, digital cameras), software (Excel, discussion forums), or a combination of the two. It usually refers to numerous knowledge and services (software) offered on the computer in the educational context. ICT is not solely for educational purposes, and it is also not a cure for all educational issues. It is, however, "definitely a valuable tool that allows us to connect multiple learning communities in new and myriad ways" (Taylor, 2000). According to

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research, using ICT to assist innovative instructional approaches and make difficult-to-implement instructional methods like simulation or cooperative learning more viable is possible (Roblyer, Edwards, & Havriluk, 2004). Furthermore, most educators think that if implemented appropriately, ICT has the potential to improve students' learning and effectiveness (Wang, 2001).

Integration has a feeling of totality or completion (Earle, 2002), in which all of a system's fundamental pieces are seamlessly blended to form a whole. Handing out a selection of websites or CD-ROM programmes to students is not ICT integration in education. ICT and other exceptional educational elements such as pedagogical content knowledge are moulded into one entity in a well planned ICT integrated session. As a result, removing the ICT component from the ICT-integrated lesson would reduce the quality of the lesson in some way (Williams, 2003).

In this study, ICT integration is widely defined as the process of employing any ICT (including web-based information resources, multimedia applications on CD-ROMs, learning objects, and other tools) to improve teaching and learning (Williams, 2003). It's more of a method than a finished thing. Integration will not occur as a result of a simple placement of hardware and/or software (Earle, 2002). Several studies that compared traditional classroom-based instruction to technology-enhanced training showed no significant differences in student satisfaction, attitudes, or learning results (Johnson & Aragon, 2003).

The pedagogical design for efficient use of ICT, not the accessibility of technology, is the major factor that determines the effectiveness of learning (Mandell, Sorge & Russell, 2002). The computer should be integrated into the curriculum rather than the curriculum being integrated into the computer (Earle, 2002). As a result, comprehensive ICT integration should emphasis on pedagogical design, justifying how and why technology is used.

Learners can be engaged if ICT is effectively integrated into the learning process. In problem-based learning, for example, employing multimedia to offer authentic and ill-structured problems can encourage and challenge students, allowing them to improve their conflict skills (Boud & Felleti, 1991; Savery & Duffy, 1995). Learner-content, learner-learner, learner-

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teacher, and learner-interface interactions can all be supported by ICT (Chou, 2003; Moore, 1989). These types of interactions make this process more engaging and engage learners.

ICT STRATEGY

Another factor contributing to the misalignment of technology trends is lack of technology planning. A school's expectations, goals, content, and actions regarding the integration of ICT in education are described in a technology policy plan (Vanderline, van Braak & Tondeur, 2010). Visioning, professional growth, and evaluation are all part of this process. While organizations have been purchasing high-tech equipment in order to implement the latest innovations in learning and teaching, the results have been mixed, both in terms of teacher adoption and in terms of student learning outcomes. According to Gulbahar (2007), integration of technology is a difficult challenge for school administrators and teachers. Even school administrators who considered themselves skilled in the use of ICT acknowledged a lack of rules that would lead to successful integration in her study. The significance of digital planning in schools is confirmed by Tondeur and colleagues (2008). They discovered in the poll that ICT planning, along with ICT assistance and training, has a considerable impact on ICT use in the classroom. They also mentioned that school policies on ICT are inadequate and misused. The findings lead us to assume that to achieve in technology integration, a shared and education vision of ICT is required.

Technology planning, according to Anderson (1999), is the process of creating, modifying, and executing technology plans to help businesses to achieve their objectives. A technology strategy includes outlines the learning objectives, as well as how the technologies will be implemented and assessed. Technology plans, according to Fishman and Zhang (2003), are the link between research and innovation in learning technologies and their implementation in schools.

They outline four aspects of successful technology planning. The use of the offering new products and services as a document is the first option to evaluate. Typically, a technology plan is developed at various levels of administration. Such a strategy can serve as a model for all stakeholders, including educational planners, mid-level managers, and school

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administrators, at the highest level. Second, this fact sheet would make its way down to classroom teachers. A technological strategy, on the other hand, exists on numerous levels and serves a variety of goals.

Thirdly, a technology strategy is never set in stone. Because technology evolves at a rapid pace, the technology plan must be flexible and adaptable to the changing circumstances. A major mistake made by institutions that have established a technology plan, according to Fishman and Zhang (2003), is the idea that the analysis of organizational is the end of the journey. Because of the ever-changing nature of technology, the plan must be adjusted and revisited on a regular basis. Such tweaking and reviewing not only allows teachers to better align with new technology, but it also aids in the adjustment of the varying learning society and environmental context. The fourth attribute is that any effective technology plan necessitates multi-level commitment, support, and collaboration. Establishing relationships with schools and other groups, such as curriculum and the private sector, is critical. Having close ties with these groups can provide much-needed assistance.

CONCLUSION

Most schools clearly do not yet have a structured or methodical approach to technology integration. Few schools can claim to be "learning organisations" with a common commitment to educational technology. The literature on school improvement emphasises the importance of leadership in generating a commitment to change in this regard. Their ability to establish and articulate a shared vision regarding technology use in joint coordination with other school community actors is seen as a vital building element in this process.

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