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Blended Learning - Integrating Technology In Education

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ABSTRACT

Education, given its important role in the economic, political, social and cultural development of any country, is potentially one of the key sectors where information and communication technologies (ICTs) are applied. A revolution is taking place in education in the way people learn and the way instruction is given and the momentum toward these changes is irreversible. Computer and digital technologies are no longer objects of study; they are now a part of an integrated learning environment. The classroom, now linked to the world, needs teachers with new skills, attitudes, and abilities. It is inevitable that these advances will merge into a set of standards for education related to technology. India, however, has been slow in integrating technology as part of education. With the continued movement towards establishing standards for student learning and the support for higher standards for teachers, technology standards should receive support from policymakers and educations organizations.

Key words : Technology, Education, E-Learning, Blended Learning

Introduction

Education, given its important role in the economic, political and cultural development of any country, is potentially one of the key sectors where information and communication technologies (ICTs) are applied. The potential uses of ICTs in education are vast: from radio and television programmes to the use of CD-ROMs, e-mails and the World Wide Web. The opportunities presented by internet to change the content of and approach to learning as well as to extend the reach of educational institutions had a profound effect on development. The internet has the potential to overcome geographical and time barriers, and to allow students to study in any place at any time. The use of the internet for education, including the use of websites and e-mail, has come to be known as online education (Figure 1). E-learning is a broader notion than online learning which embraces every kind of teaching and learning situation using some element of electronic or digital resourcing (radio, audiocassettes, videocassettes, TV, personal computers, e-mail, web) and considers online education a subset of e-learning. Students in India are following a full technical degree online. Researchers, teachers and students are communicating globally. Another concept is blended learning which a combination of both traditional is and technology-based learning methods. As the name suggests, blended learning is learning that combines different modes of student engagement. In practice, the use of blended learning has been limited to the combination of online learning with face-to-face instruction. The objective of this study is to analyze the trends resulting from the use of technology in the provision of education in recent times with main focus on blended learning.

Digital Technology and its Impact on Education

A revolution is taking place in education in the way people learn and the way instruction is given. Some believe the method of an instructor lecturing while students listen and "absorb" is really the only viable way to teach or learn.

The internet has been in existence for almost two decades and began to extend into schools about 15 years ago, It did provide an opportunity to expand learning options for teachers and students who were fortunate enough to have internet access, a few computers, and appropriate guidance on usage.

Figure 1
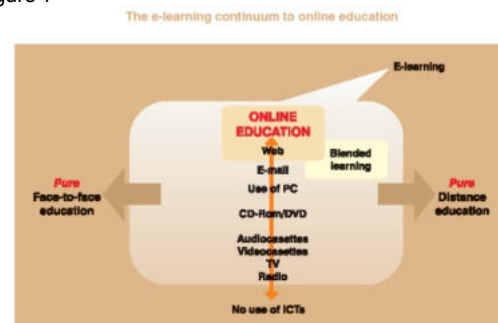
There are many factors affecting the slow implementation of computing and communication technology in schools, including administrations with no knowledge of its value or no willingness to realign school budgets to include computational technology; insufficient in-service professional development programs for teachers; a lack of specific curriculum benefits or of resources for teachers to use in their courses; and deficient pre-service preparation of teachers in technology or computation. Computer and digital technologies are no longer objects of study; they are now a part of an integrated learning environment. The classroom, now linked to the world, needs teachers with new skills, attitudes, and abilities. It is inevitable that these advances will merge into a set of standards for education related to technology. Standards will undoubtedly evolve as digital technologies continue to become more and more a tool of society.

Bridging the Gap on Educational Technology

A technology program can only succeed when support will come from the top most levels of institutions. The best leadership enables teachers to become the best they can be through consultation, collaboration, communication, support, respect, and encouragement. Teachers are the leaders in the classroom. However, they can take advantage of the advancements of successful technology integration unless they have sufficient knowledge and skill to feel comfortable using technology in the classroom. Technology advances so rapidly that faculty skill quickly becomes obsolete as new hardware and/ or software systems are introduced. Commitment to a technology based teaching and learning program will wane unless teachers routinely are helped with the process of learning new skills. Teachers must be given adequate time to update teaching methods in line with the latest developments in educational technology.

Achieving Success with Blended Learning

Traditional physical classrooms have been the dominant form of knowledge transfer for at least 3,000 years. Even today, nearly 80% of corporate training is conducted in the classroom. The last universal technology in learning, the printed book, is over 500 years old. Yet in the past 10years alone, over 10 major new technologies for learning and collaboration have been introduced. Early experience with these technologies has uncovered opportunities for profound improvements in quality, effectiveness, convenience and cost of learning experiences. Only now a beginning has been made to understand how learning experiences will evolve to exploit "blended" combinations of both traditional and technology-based learning methods, Blended learning can be described as a learning program where more than one delivery mode is being used with the objective of optimizing the learning outcome and cost of program delivery. Blended learning focuses on optimizing achievement of learning objectives by applying the "right" learning technologies to match the "right" personal learning style to transfer the "right" skills to the "right" person at the "right" time.

Dimensions of the Blend

Blending Offline and Online Learning

At the simplest level, a blended leaning experience combines offline and online forms of learning where the online learning usually means "over the internet" and offline learning happens in a more traditional classrooms setting. An example of this type of blending may include a learning program that provides study materials and research resources over the web while providing instructor-led, classroom training sessions as the main medium of instruction.

Blending Self-paced and Live, Collaborative Learning

The blending of self-paced and collaborative learning may include review of important literature on a regulatory change or new product followed by a moderated; live online, peer-to-peer discussion of the material's application to the learner's job and customers.

Blending Structured and Unstructured Learning

A blended program design may look to capture active conversations and documents from unstructured learning events into knowledge repositories available on-demand, supporting the way knowledge-workers collaborate and work.

Blending Work and Learning

Ultimately, the true success and effectiveness of learning in organizations is believed to be associated with the paradigm where work (such as business applications) and learning are inseparable, and where learning is embedded in business processes.

Ingredients of the Blend

Blended learning is not new. However, in the past, the ingredients for blended learning were limited to physical classroom formats (lectures, labs, etc.), books or handouts. Today, organizations have myriad learning approaches to choose from, including but not limited.

- **Synchronous physical formats:**
  - Instructor-led Classrooms & Lectures
  - Hands-on Labs & Workshops
  - Field Trips

- **Synchronous online formats (Live e-Learning):**
  - eMeetings
  - Virtual Classrooms
  - Web Seminars and Broadcasts
  - Coaching
  - Instant Messaging

- **Self-paced, asynchronous formats:**
  - Documents & Web Pages
  - Web/Computer-Based Training Modules
  - Assessments/Tests & Surveys
  - Simulations
  - Job Aids & Electronic Performance Support
  - Systems (EPSS)
  - Recorded live events
  - Online Learning Communities and Discussion Forums

The Right Ingredients of a Blended Program

Creating a blended learning strategy is an evolutionary process. The first stage in blended learning program initiative is to supplement current programs, either traditional classroom or self-paced content libraries, with live e-learning activities (coaching, virtual classrooms or workshops) to extend the learning process and better integrate it with the work environment. The concept of blended learning is rooted in the idea that learning is not just a one-time event but that learning is a continuous process. Blending provides various benefits over using any single learning delivery type.

The Benefits of Blending

- Improved Learning Effectiveness

A blended learning strategy actually improves learning outcomes by providing a better match between how a learner wants to learn and the learning program that is offered.

- Extending the Reach

A physical classroom-training program limits access to only those who can participate at a fixed time and location, whereas a virtual classroom event is inclusive of a remote audience, and can extend the reach to those who could not attend at a specific time.

- Optimizing Development Cost and Time

Combining different delivery modes has the potential to balance out and optimize the learning program development and deployment cost and time. Combining virtual collaborative learning forums and coaching sessions with documents, case studies, recorded live e-learning events text assignments and power point presentations may be more effective.

▪   Optimizing Business Results

Learning objectives can be obtained in 50% less class time than traditional strategies. Research from institutions such as Stanford University and the University of Tennessee has given valuable insight into some of the mechanisms by which blended learning is better than both traditional methods and individual forms of e-learning technology alone. The studies show that, the diversity of a blending learning experience has a significant impact on the overall effectiveness of a learning program relative to any individual learning delivery method alone.

Conclusions

Technology is affecting education in revolutionary ways and the momentum toward these changes is irreversible. Students and teachers have a wealth of information available to them. Teachers who have begun to use the web see this change occurring. Educational institutions are rapidly discovering that blended learning is not only more time saving and cost effective, but provides a more natural way to learn and work. Institutions that are in the forefront of this next generation of learning will have more productive staffs, be more agile in implementing change and be more successful in achieving their goals. Institutions must look beyond the traditional boundaries of classroom instruction by augmenting their current best practices with new advances in learning and collaboration technologies to maximize results. More importantly they must seek to empower every individual in the organization to become an active participant in the learning and collaboration process

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