

E-learning Education

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Abstract - Students are exposed to a whole new learning environment while using e-learning, therefore success depends on having various skill sets. Skills in critical thinking, investigation, and assessment are becoming more and more crucial as students must navigate through expanding amounts of information from many sources. Additionally, students are far more autonomous than in a conventional environment, especially in completely online courses. They must be very focused and dedicated to teaching, with little social contact with students or the teacher. Although there is a greater rate of withdrawals or incomplete grades in online courses, students generally do as well as in traditional classroom settings. E-learning is a pedagogy for student-centered and collaborative learning that may be thought of as both computer-assisted learning and pedagogy. Early innovations in e-learning centred on computer-assisted learning, when some or all of the learning materials are sent digitally. The educational component of e-learning has gained prominence more lately. All modes of learning and teaching that are facilitated electronically fall under the category of e-learning. Whether or whether networked learning is used, information and communication technologies act as particular medium to carry out the learning process.

Keywords - E-learning, computer-based, efficient.

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INTRODUCTION

During the past decade, the use of technology & multimedia in training, learning, and education has grown at an astronomical rate. E-learning is a multi-dimensional field. There are a variety of theoretical viewpoints in the field, showcasing several schools of thought. Electronic learning is concerned with the influence of new technologies on classroom instruction and student learning. The e-learning environment of an organisation is used to teach and educate personnel about their professional duties and corporate plans and policies. The influence of an e-learning setting in corporate training may be seen in a variety of ways.[1]

Keep up with the newest technology advances in the business sector is one of the major problems in contemporary times. Acquiring the required information and skills is essential in today's fast-paced world, whether we do it in the office or in the privacy of our own home. Routine is a thing of the past, thanks to the fast advancements made possible by the Information Superhighway.

Companies may teach their employees using e-learning to stay abreast of the newest technical developments. Electronically aided learning and instruction is referred to as E-learning. The e-learning environment's information and communication technologies are used to implement a learning process. They may either be connected to a network

or utilised alone. In an e-learning environment, information, knowledge, and skills may be exchanged electronically. Computer and network technology facilitate the exchange of data, knowledge, and skills.[2]

e-learning encompasses a variety of methods, including those based on the Internet, computers, and virtual classrooms. CD-ROMs, DVDs, and satellite TV are all ways in which the digital material is made available. Text, picture, animation, video, and audio are all included in this kind of multimedia or digital material. This term is often referred to as e-learning using abbreviations like e-learning, CBT or IBT.

Since online learning may be used in conjunction with face-to-face classes or more conventional teaching methods, the term "Blended learning" is sometimes used to describe a combination of online and traditional instruction. In Sameer (2009), Blended Learning is defined as a fruitfully successful effort in incorporating live classroom activities, including face to face instruction, along with online learning & instructions in order to reap the maximum benefits by utilising the best elements of throughout all of effective planning by such an ideal facilitator.[3]

"Web-based training" and the more broad phrase "e-learning" are two of the hottest buzzwords in academia and industry today, according to

Dietinger (2003a). New means of learning that are greater cost-effective than conventional methods and that enable students to better manage the process of learning by allowing them to determine when, where, and how quickly to study are associated with them by decision-makers. Because of this, e-learning and web-based training approaches are becoming more popular with corporate managers.

All organisations rely on information for their survival. Training and education are two of the most crucial processes in a business. As a result, whether the classroom is actual or virtual, training techniques must be of the utmost quality.

An organization's staff must be educated and well-versed in their field. Traditional teaching techniques must be supplemented with the best and most up-to-date instructional tools accessible to workers.[4]

E-learning, the newest and most modern technology, is being used widely by corporations to teach their personnel. Most firms are investing a significant portion of their income on e-learning programmes for their workers, regardless of the industry in which they operate.

Technology-based instructional materials have a positive impact on both staff and students. A technology-based instructional medium allows learners to explore new & intriguing means for learning.[5]

To satisfy the requirements and expectations of learners in the 21st century, the teacher preparation programme is expected to integrate modern technology in education. There must be instructors who know how and where to convey information and who really care about the success of their students in the future if we are to satisfy these high expectations from students. Consequently, instructors should be well-versed in technology-rich environments, as well as effective pedagogical techniques and specific skill sets that may be obtained via ongoing and intensive training. Teachers and students will benefit from this, and the standard of education will increase. As a result, the education system is under pressure to implement novel pedagogical techniques that reflect new methods of instruction and learning, allowing students to become more self-reliant in their education.. Individuals will be able to fulfil their learning objectives and results via these self-paced learning activities. To help students learn independently, technological integration with traditional ways of teaching and learning may be beneficial. Blended learning is a term that describes this kind of integration. According to this definition, Blended Learning is "the integrated mixture of existing learning with web-based online approaches, the mixture of media employed in an online learning environment, as well as the combination of several educational approaches, irrespective of educational technologies used". In blended learning, traditional

classroom activities such as multimedia presentations, brainstorming, case analysis, debates, demos, small group discussion, and problem-solving are combined with online components.[6]

Educators have a critical role in passing on information to the next generation. It is critical, therefore, to create a cadre of educators and programmes for teacher preparation that use cutting-edge educational technology to better serve students in the twenty-first century. Teachers how to convey information and who really care about students' future success are essential if we are to satisfy the educational needs of today's students. Teachers, then, need to be prepared to practise with proper teaching methods, adequate material knowledge, and specific expertise in a technology-rich setting, which may be learned via ongoing and rigorous training. Through the improvement of teaching, we may also raise educational standards. There is thus rising demand on educational systems all over the globe to adopt new ICTs in order to educate pupils and gain the information and skills they require for the twenty-first century.[7] According to UNESCO's global education report (1998), "Teachers & Teaching in a Changing World," the teaching profession is shifting from a focus on teacher-centered lecture-based instruction to student-centered, interactive learning settings as a result of new technology. The use of ICT in educational programme development and implementation is commonly regarded as a necessary component of educational reform. A teacher can't be replaced by any newer technology gear, on the other hand. As a complement to the instructor, electronic devices may help students study more effectively. Even without the assistance of technology, teachers may still teach more successfully in a traditional classroom.[8]

Conventional teaching focuses on the instructor controlling the learning environment, and it is the most prevalent type of teaching used by teachers. The teacher is the one who holds the reins of authority and decision-making authority. In traditional classrooms, the teacher is seen as a knowledge facilitator. Teaching techniques such as lecture, demonstration, project or assignments are the most widely utilised traditional approaches. Teacher acts as a leader and instructs pupils on how to carry out activities in all of these methods.[9] Students' attention spans are shorter and their concentration levels are worse while learning via the lecture technique. The instructor continues to discuss and demonstrate the experiment as the students actively engage. If you compare this approach to the lecture technique, you will see that it utilises a two-way learning process. It is crucial for teachers to take a part in the teaching and learning process while using project and assignment methods. As a result, the traditional approach to education is centred on the

teacher. As a student-centered technique, it is not believed to be effective. In traditional teaching methods, students' active participation and interaction are missing. Teachers thus employ e-learning, which is a student-centered strategy that encourages students to be more engaged in their own education.

E-learning, or online learning, makes extensive use of cutting-edge technology to make it easier for students to study. Online learning tools that are open source and free have recently been the subject of study to see whether they can be used together effectively.[10] In this way, students have more control over how they study since they can go online and get the knowledge they need. Many social networks and email systems allow teachers and students to communicate with one other and learn from each other. Students take self-paced courses or courses with a similar curriculum and work at their own pace. There is a shortage of an instructor who can help students learn in person.[11]

The importance of education and training in today's electricity markets cannot be overstated. High financial worth of market activities and intense power market forces need a high educational level for corporates. A growing number of enterprises are turning to the internet to help them improve the efficiency of their day-to-day operations. As businesses expand internationally, they have more chances than ever before to collaborate with individuals from all over the world, and E-learning is a great way to bring people from all over the world together to learn together.[12] To keep up with the ever-increasing demands of the modern workforce, many companies have invested heavily in cutting-edge technology that allows their employees to learn anything, from anywhere, at any time, with the least amount of manual effort. The rapid rate of change in the workplace and workers' reluctance to leave the office for lengthy periods of time have resulted in the establishment of 'just-in-time' learning rather than 'just-in-case' learning (Harun 2002). More and more firms are looking at E-learning as a viable alternative to traditional classroom training since it is more cost-effective. Corporate training is essential for a company's employees to have the necessary information and abilities to complete a certain task. Corporate training is primarily focused on the transmission of information, for example, internal and external workshops and seminars are an essential but costly aspect of any organisation. To help salespeople learn how to handle new items and develop sales techniques, e-learning is a cost-effective and time-efficient option.[13]

Corporate learning, on the other hand, adds a new dimension to training by including learners in the creation of new knowledge & skills that benefit the firm as a whole. The knowledge economy & fast technological advancements need ongoing training and retraining of workers in new technologies, goods, and services in the current context. Using e-learning

as a tool for training may help a business achieve its goals and gain a competitive edge in the marketplace more effectively. Employability or corporate effectiveness may be improved by enhancing the organization's knowledge base or skill base; in addition, just-in-time training and control over learning can be improved. Electronically aided teaching and learning activities are collectively referred to as e-learning. An increasing number of companies throughout the world are preparing their employees for 'blended learning' techniques that integrate online and ICT-based learning with traditional classroom instruction.[14-16]

• Inquiry-Based Education

For example, Gerry et al. (2006) claim that computer-supported collaborative learning (CSCL) is an emerging part of a learning sciences that studies how people learn together using computers.[17]

It is the goal of CSCL's techniques and instructions to enable students to study together and collaborate on projects. E-learning 2.0 and NCL may be used to describe CSCL.

The instructor or trainer is not the facilitator inside the process of knowledge and skills transmission as is the case with conventional methods of education. An "e-learning 1.0" refers to computer-based learning and instruction systems CBL that provide or transmit information directly to learners. An example of this would be when a teacher or trainer gives a lecture and then gives a demonstration. CSCL makes use of internet groups, blogs, wikis, and document portals hosted in the cloud.[18]

• The Next-Generation Web and Social Media

Web 2.0 and quick technology improvements have made it simpler for several individuals in a network to share information. Learners and instructors or trainers may collaborate and exchange ideas using Web 2.0 social technologies in the classroom. It simplifies the transmission of information and abilities from the trainer to the student.

People linked electronically over the Internet may be used in innovative ways through Web 2.0. Web 2.0's primary goal is to bring people together in innovative ways and make use of their combined talents. Many new ideas have been developed in this field, such as: Techniques. In Web 2.0, new linkages between collaborators & information are created. Social Networks are created and maintained with the use of Web 2.0 components. As a result of Web 2.0, Social Networks are now easier to establish and more successful to expand. Digital literacy is at an all-time high in today's world, and the tools made possible by the

computerization era are the most effective means of preserving a complex idea like Social Networks.[19]

ESSENTIAL E-LEARNING CONDITIONS.

There are a number of requirements that must be met before e-learning may be successful. There are a few ways to sum them up:

- At least one or much more learners with a definite learning objective in mind.

Digital material that symbolises the information and skills to be learned, as well as a description of what the topic is about and how to get there. • E-learning multimedia and digital content Videos, animations, and interactive elements may be used in e-learning material.

- An educator who specialises in online education. Additionally, e-learning requires the assistance and guidance of one or more instructors who aid and lead learners in their efforts to attain their learning objectives.[20]

Internet or intranet connectivity is required to use this kind of e-learning environment. Students may use it to connect with their learning objectives and serve as a conduit between the two. Admin and management tools are often included in e-learning settings.[21]

The following are some additional often used terminology to describe e-learning environments:

- Learners' learning requirements are diagnosed using a computer-managed instruction system (CMI), which then prescribes the instructional activities that are most suited to meeting those needs.
- E-learning information is delivered, documented, administered, and tracked using a Learning Management System (LMS) software application. A learning management system (LMS) may be software that distributes training materials via the Internet or it can be a system to manage training and documentation. There are several colleges and institutions that employ Learning Management Systems (LMSs) for both on-campus and online courses. Training departments utilise Learning Management Systems (LMSs) to offer online training and to streamline record-keeping & employee registration.
- It is possible to create more complicated

learning materials with the help of an LCMS, which is a kind of learning content management system. The LCMS places a high value on developers' ability to produce new content.[22]

EDUCATION IN THE DIGITAL AGE

One or a few pupils with whom the instructor has a personal connection are ideal in the ideal learning environment. Each student should have roughly the same degree of expertise and appealing personal profiles if there are several students. Students should know each other well and like working and assisting one another. In person interactions between teachers and students enable them to respond quickly to the needs of their charges. So the instructor can reply to each pupil personally and stimulate them. Additionally, the students have access to all of the essential materials to help them comprehend the subject matter more quickly, and there are many opportunities to practise and test what they've learned and apply it to real-world challenges.[23]

Even if one's aim is just to remember certain information or carry out a procedure, this perfect condition will most likely lead to a highly quick learning process, regardless matter how complicated the learning goal is.

Even while it may seem like the perfect learning environment, it isn't always useful for at least a few of the following reasons:

- There are just a few students in the same situation.
- Students and teachers are often unfamiliar with one other.
- It is based on the time and location.
- As a result of the teacher-student ratio being so small, as well as the tremendous amount of time required, this course is incredibly costly.

The biggest justification for replacing instructor-led instruction in the manner described above is that this scenario and all related conventional learning methodologies cannot provide new information to a large number of students quickly enough. The short development & deployment cycles and constantly changing job profiles also create new needs such as lifelong learning or "just in time" training. A new form of learning is needed in today's economy for it to continue to thrive. Technology-enabled learning can only be successful in an atmosphere that is favourable to it. For easy and effective use of e-learning

materials, an e-learning ecosystem is an artificially built environment that includes all necessary components.[24]

Interaction between participants to their learning goals, as well as many methods for achieving this aim. A Web browser is often used to access an e-learning environment through the Internet or Intranet, and it typically offers a variety of learning methodologies as well as various modes of engagement, communication, and collaboration. E-learning environments, on the other hand, are typically equipped with administrative and management tools as well as interfaces to other platforms to aid in the organisational aspects of learning.

ACADEMIC SUCCESSFULNESS AND A COMBINED LEARNING PROGRAM

Blended learning is described as "the integrated mix of conventional learning with web-based online techniques," "the combination of technologies and media utilised in an e-learning environment and the integration of pedagogic approaches no matter what the learning technology used." The Blended Learning Program, on the other hand, uses a variety of delivery methods and learning activities to ensure optimal learning and engagement for each student. There are a variety of learning technologies that may be used in a blended learning programme, including self-paced Web-based courses and learning management systems. Learning in a Blended Learning environment is facilitated by a learner-centric approach. The academic success level of pupils who are taught in a mixed learning setting is expected to rise. Researchers Chen and Jones (2007-08) performed a research comparing Blended Learning with regular classroom settings. Student satisfaction in an MBA accounting course will be examined as part of this research. Research shows that students' academic performance has increased as a consequence of Blended learning delivery techniques. As a result, students will do better in a Blended Learning setting than they would in a Traditional Learning environment.[25]

CONCLUSION

E-learning gives students the flexibility to adapt their studies around their schedules, making it possible for even the busiest individual to advance their careers and get new credentials. Since the advent of the internet, some of the most significant advancements in education have occurred. Today's students are used to utilising smart phones, texting, and the internet, making it easy for them to take part in and manage an online course. Since there are now accessible online learning options for both computers and the internet, education can now be easily accessed from almost anywhere.[26]

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