E-LEARNING TECHNOLOGIES AND HUMAN LEARNING PROCESS

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Abstract

Learning has been a recurrent and inseparable activity of human being since ever. People have been inventing and discovering various methods and techniques to improve its acquisition process and ways. One's progress and development has always been evolutionary as regards to learning versatility. One has come to know various tactics, techniques and technologies according to the developing circumstances. But now, in the 21st century, it may be said that this process cannot be termed as evolutionary as it was in its place a revolutionary phenomenon. Science and technology changes the whole internal mindset as well as external perspective. Computer changes the whole scenario. With its introduction, the conception of electronic era emerged. Electronic learning opened a new chapter in the history of human education and knowledge. Virtual classroom concept came into being. Interactive means changed altogether. All these means prove to be effective in the human learning process.

Keywords:

E-learning, learning, process, interactive, society.

1. Introduction

E-Learning is often presented as a simple cost-savings solution in training terms, i.e. classroom costs are directly compared to online training costs. When an e-learning solution has been implemented to solve a learning or business problem, if the problem is not solved and the benefits are not realised, then quite clearly the solution cannot be considered successful. So why are some e-learning solutions unsuccessful? One of the main reasons is quite simply because they are not used. There are many explanations about this issue, but essentially they fall into three main categories: learners won't, don't or can't use them.

Learners won't use them because e.g. they are unnecessarily long and do not meet their immediate learning needs or they are presented in an inappropriate format (e.g. a set of linear, text-based materials for learners who need visually exciting and interactive materials to engage them in the subject). Learners don't use them because e.g. they do not run properly on their computers, because the computer specification is not adequate enough or their manager thinks that if they use them they do not work, so it prevents them from using them or they are too generic and do not meet their specific needs, and as a result are considered a waste of time.

Learners can't use them because e.g. they do not have the necessary understanding or competence with computers to make use of them or they include audio and video material which they cannot play because it would disturb the work of their colleagues (Keen, 1996, 100).The essential role

ofe-learning within the institution is that e-learning is a means to an end not the end itself. It is not about how much people have learned or about how many people have been trained, but on how they have applied their learning. Most large institutions have embraced e-learning as a cost-effective method of delivering teaching and learning.

2. How interactive technology affects learning process?

Sometimes it is good to have a teacher to guide and point out the way for your future learning. Just as a leader has his or her own style, the way of motivating the students also plays an important part in a student's success. Spending more time with our children than most parents do, a teacher is fundamental in shaping our children. Having a teacher can make the learning easy and efficient. Whenever one makes a mistake, the teacher will explain, so that you will not fall off at the same spot repeatedly. This becomes obvious while oneis learning a foreign language. One would never know if he or she makes any mistakes in pronunciation if there was not a teacher around, teaching pronunciation in the appropriate way. Since the teacher is keeping your studying on track, he or she will find out what your weaknesses are, and thus providing a way to solve them. Interacting with a teacher during study activates the learning process. The teacher might tell you his or her own experience as well as how he or she becomes successful in the subject you are studying which enlightens you.

On the other hand, in some cases, having a teacher is unnecessary. For instance, some problems may seem to be quite complicated. Nevertheless, if you calm down and break the question into small pieces, you may just realize that you have learned enough knowledge to solve the problem by yourself. Moreover, self-learning can be fairly helpful and beneficial. A self-learner tends to be more original than those who rely overly on teacher's ideas. There are plenty of successful examples of self-learners. One of the most famous one is Thomas Edison. With the help from his mother, Edison finished his education and later became a miracle in the twentieth century. Leading by his unique foresight and vision, Gates became the chairman of Microsoft. The successes of Edison and Gates adequately prove the advantage of self-learning.

All in all, having a good teacher can always be a shortcut to gain knowledge. Teachers give you essentials and more importantly show you a method of learning. In addition, self-learning is also a good way of learning which appears to be higher and more creative. However, no matter what you choose, your own effort and endeavour are indispensable.

Online studies provide a number of learning options, in addition to classroom-based instruction. An example is, "Distance Education", when the instructor and student are separated by physical distance and technology. These course delivery formats are designed to offer the working adult the greatest flexibility in planning their academic schedule. Many of these formats use the latest technological advances to bring teachers and students at different locations together, while others enable to complete course requirements without classroom attendance.

3. Technology implementation in human learning process

Implementation is the process of making a new or improved work system operational in the institution. E-learning lends itself to paired modules - a learning course and an assessment test. The test is not meant to fail people. It is there to allow them to demonstrate their competence.

If everyone achieves a very high score on your test, you have achieved exactly what you wanted. If not, you should review (a) the questions, in case they are badly worded or needlessly tricky, and (b) the learning module, as there may be topics that are not adequately explained. One should bear in mind that the benefits of E-learning, or any other training, are difficult to quantify in terms of changes of behaviour and productivity and return on investment. Gather whatever evidence you can, using similar methods to those by which your institution was evaluating its previous training provision.Consider what was successful about this pilot. Can you see ways the courseware design could be improved? How did you get on with the software, with outside contractors, with your own IT support people? Learn from any failures and shortcomings certainly, but most of all, build on your success. You will learn more from this one experience than from five years of reading reports, setting up meetings, and preparing strategy documents.

Of course, as you roll out your e-learning implementation more widely through your institution, you may wish to draw on the expertise of specialists in various disciplines. The advantage of starting by doing is that you will find out where you need help, and where you can manage perfectly well on your own.Much has been said about online learning. However, its impact has not been quite as widespread as expected. Learning Tree research makes conclusion in participants that "high dropout rate, comparison shopper, and quality indifference", these "lessons" cannot be solved through process control (traditional lifecycle), it makes way for the next best choice - the Hybrid Blended learning model. This calls for combining traditional classroom based learning with computer-based teaching.

4. Online learning technology and changing society

In addition to the changing entertainment, the Internet is changing many other aspects of society, including the way business is conducted. The Internet has changed the way people access news, exchange information, and travel. Technology also has had a tremendous impact on education at all levels, K-16, and provides a plethora of opportunities for both formal and informal learning. Lectures can be delivered via pod casts or entire courses delivered virtually. Access to the Internet is possible and opens up vast possibilities for learning and accessing information.

Academic libraries are also changing in fundamental ways. Due to the Internet and other technologies, libraries are buying fewer books and journals in favour of electronic copies, and reconfiguring space into electronic workstations for users. The reference librarian's job has evolved into an on-call, electronic consultancy; eliminating the need to physically enter the library. No longer do libraries have to purchase printed reference materials and their annual updates, because the electronic versions can be revised continuously. The shift from paper to electronic materials is enabling users to access them anytime and from any location. With the increase in electronic materials comes the need for increasingly powerful search engines provide access to the materials.

Beyond the need to assess the accuracy and appropriateness of online sources, learners need to know what to do with the information and whether that use is appropriate. For example, a major problem with sources obtained from the Internet is that students sometimes use these sources to cheat. Students can easily purchase term papers, copy work, and exchange answers on exams.

Although cheating occurred well before the technology existed, and will continue to occur, the Internet has made it easier to cheat and harder to identify cheating, despite evolving technologies to detect cheating. The result is that teachers and professors must keep pace with their often more technologically savvy students.

Clearly, technology is transforming how people work and learn. Printed books, journals, texts, and other media remain essential. But perhaps the most important physical tools a lifelong learner needs are the appropriate telecommunications equipment and resources that provide access to the Internet. In addition, certain skill sets that enable individuals to make critical and careful use of the virtual resources are needed. These skills include lifelong learning skills, self-regulation, information communications technology (ICT) skills, and 21st-century skills.

Lifelong learning has become more than a buzz word in today's knowledge society. Learning does not cease once one leaves a formal learning environment; it occurs in informal settings. For individuals to remain current, informed, and survive in the global community, they must access and process information and transform it into usable knowledge. This means that individuals must be lifelong learners and must have acquired certain survival and learning skills. Whether it is a 6-year-old searching Petfinder.com for a puppy or kitten, a 40-year-old researching investment options, or a 90-year-old reading the news, such online activities require certain cognitive, self-regulatory, and technical skills.

The Internet enables learners of all ages to access information. Flores and Flores (2003: 242) developed a four-stage model of self-directed learning that Inoue (2007: 22) applied to the need for lifelong learning skills in online environments: people transition from the dependent learner to the interested learner, to the involved learner, and ultimately to the independent learner. In formal learning environments, the transformation occurs as responsibility for learning shifts from the teacher to the student. In informal environments, it is contingent upon individuals to control their own learning experiences. Independence or self-direction is one of the most important characteristics of a lifelong learner engaged in online learning activities. Once individuals leave the relative security of formal learning environments, they are on their own. They must direct their own learning and will not succeed if they are considered a dependent learner. In informal settings, in particular, learners are generally without the assistance of a teacher, mentor, or coach (Tornei, 2007).

5. E-Learning technologies

There is much rhetoric about how technology has transformed and will continue to transform the lives of students, employees, and citizens. There is no question that technology and the Internet are powerful tools that influence how people work, study, acquire information, and engage in leisure activities.

The International Society for Technology in Education (ISTE), a national committee, has identified six standards for teachers regarding technology. The standards are the ISTE National Technology Standards (NETS) for Teachers (Johnson, Musial, Halle, Gollnick, & Dupuis, 2005, 46). These six standards set goals and expectations for teachers to use, value, and understand the use of technology in their classrooms.

The use of an interactive whiteboard in the classroom helps to meet all of the standards set forth by the International Society for Technology in Education. Standards two, three, and five are met

directly by using an interactive whiteboard while standards one, four, and six are met indirectly. Standard number two, Planning and designing Learning Environments and Experiences, is met by using the computer to plan and design lessons that effectively teach concepts and then are presented to the entire class, using an interactive whiteboard, to experience together thus increasing the interaction between the teacher and all students.

Standard number three, Teaching, Learning, and the Curriculum, is met by using an interactive whiteboard to aid teachers in implementing their curriculum plans and applying technology to increase student learning during lessons. Standards number five, Productivity and Professional Practice, is met when using an interactive whiteboard to enhance a teacher's productivity. Using an interactive whiteboard will help a teacher to be more productive by saving time. Using saved lesson plans and teaching to the entire class at the same time will save precious time in class and in preparing for class leaving more time to give individual attention to students.

Standards one, four, and six are met more indirectly by just learning to use the technology to its full potential. There are many benefits to using technology in the teaching profession both in the classroom and out. Technology has become such an everyday part of society, so, it is necessary for technology to become an important part of education. Today and tomorrow's technology will provide opportunities for teachers to teach and students to learn that were not available less than a generation ago.

Online classes are similar to traditional classes in many ways, but also differ in a number of significant ways. Ease of access and litheness are two of the main benefits of online instruction. Distance education providers will soon be able to offer increased aid because the restrictions placed on them are being reviewed and changed by this new act.

6. Recommendations

ICT helps to empower and engage learners of all ages in all learning environments. The report specifies that individuals will need to learn continuously, unlearn, and relearn in dynamic environments. In doing so, learners must seek to integrate and create knowledge and tolerate greater amounts of ambiguity. ICT enables access to the latest knowledge and a myriad of new learning resources that require independent searches and the integration and construction of knowledge. ICT, through its interactivity and multimedia characteristics, makes learning come to life.

By whatever definition, it is clear that there are new skills and knowledge necessary to be effective in the new millennium. Given that technology is here to stay and is an essential tool in work, school, and play, there is no doubt that ICT will require the engagement of all these skills, regardless of the learning venue. It is quite possible that 21st-century skills will be even more important in informal learning environments, guided by the Internet that provides infinite resources and information, and without the guidance provided by teachers in formal learning environments. These skills will assist lifelong learners in negotiating the complexities and many challenges they will encounter in a knowledge society.

All in all, the students enrolled in schools using wireless technology do benefit from using the different technological tools.A well-prepared instructor will have backup transparencies, student hand-outs, and basic instructional tools ready in case disaster strikes. Next, instructors need to realize that technology does not take the place of quality in curriculum and solid instructor skills. Wireless technology creates freedom for students, allowing them to do their school work anywhere on campus.

7. Conclusion

With the Internet being the latest major wave of technology, nowadays most schools and universities give students direct access to the World Wide Web. Some offer courses that are taught completely online. Statistics taken have shown that the students who take classes online do just as well as students who go to an actual high school. The computer, when used correctly, will change the way we view educational development and learning, and revamp the entire education.

One reason why computers are important for youth learning is that they provide an interesting learning environment that attracts both infants and young students. Seymour Papert writes that "across the world there is a passionate love affair between children and computers" (Papert 1). Watching pictures, videos, and sounds on a computer is very appealing to both children. The student will learn more by interacting with the computer then listening to a teacher's lectures because it is simply more fascinating. Papert also says that "one of the big contributions of the computer is the opportunity for children to experience the thrill of chasing after knowledge they really want" (Papert 19). The visual and audio stimuli offered by computers would not only increase a child's attention to the subject at hand, but would also increase retention. Todd Oppenheimer writes that "computers improve both teaching and student achievement" (Oppenheimer 45). When a child is physically interacting with the computer software, the child's full attention becomes focused onto the computer. This can be called a "video game effect." When a child is playing a video game, the child gains a sense of completely dominating the machine. This feeling is very stimulating, and makes the computer even more intriguing to the adolescent, while teaching educational material at the same time.

However, some argue against the attractiveness of the computer to children. Neil Postman says: "What attracts the child or adolescent is not the beauty or interest of the contents being learned, but cosmetic and fake effects" (Postman 24). Postman says that, although a child may be concentrating on the computer, he or she is not concentrating on the material. This is not true. Papert writes: "In children, the process of learning is primarily in the visual mode, although auditory integration is close behind. Computers, in a sense, offer us an alternative, a way to enhance, improve, and educate the next generation of adults that will guide our world" (Papert 59). Although the adolescent is being primarily attracted by the computer programme itself, the child is also learning at the same time. Computers can be likened to the psychologist Jean Piaget's constructivist theories: that knowledge is not simply transmitted from teacher to student, but rather is constructed in the mind of the learner. Oppenheimer writes that "this theory suggests a strong connection between ding and learning, and asserts that activities such as making, building, and programming provide a rich text for learning" (Oppenheimer 47). This is why computers facilitate a new, more active learning experience.

As computers do help in teaching students, they should not be the only thing that children interact with during school. Papert writes that "the computer may serve as the force to break down the

line between humanities and science . . . the computer presence can bring children in a more humanistic and more humane relationship with mathematics" (Papert 38). Teaching with no human interaction and just a computer would be the opposite of a more humanistic teaching. Loving and respecting students, one of the rules for humanistic teaching, cannot be offered by machines. This is why children cannot be taught just by computers, and why teachers must use computers appropriately. Children would turn into machines if they only interacted with computers. This reinforces the fact that teachers must learn to use computers in correctly and beneficially.

While computers succeed at attracting young students, they are also beneficial to older, more mature students as well. "Since college students are highly motivated and are comfortable with the standard lecture format, there has been little incentive for developers to design educational software at the university level" (Postman 32). However, many university professors are now creating their own web pages for their students to access. Useful information such as the syllabus, course handouts, copies of exams, evaluation, marking, and relevant links on the Internet can be retrieved by college students with the click of a mouse button. This is extremely useful and beneficial to both the professor and the student, because it eases communication. "The Internet gives fast, universal access to information and can bring the world into every library, regardless of size or location" (Papert 40). Students do not have to travel to the library as often as they used to; libraries have their own web pages that provide online catalogues, saving students time and allowing them to know what they need before going to the library.

Unfortunately, computers are not a panacea for educational problems. For teaching, the right software needs to be used. For example, a major problem with students today is that when they fall behind, they usually stay there. The good academic foundation that is needed to succeed is missed. Software can help solve this problem. "With computers as tutors, no student will be overwhelmed because he or she is missing fundamentals. The computer will repeat material until each lesson has been sufficiently mastered; only then will it move forward" (Bennett 46). This way, the computer will record the student's progress, and touch up on concepts that were not completely understood by the individual. This individualized teaching will help make it so that "no student will ever have to enter a class with a lack of basic knowledge" (Bennett 47). Using computers as teaching "tutors" will aid and simplify learning in classes. Computers can also help slower students as well, according to Bennett: "Computerized learning will bring an improvement . . . for millions of individuals: better learning for slower students who suffer the worst deprivations under the present system" (Bennett 38).

Computers can also assist in encouraging students to work hard and reach academic goals. This method of positive reinforcement "will enable every student, without exception, to attain success in school" (Bennett 23). If computer programmes divide lessons into small segments, pupils can always accomplish something. As each section is completed, the student will be rewarded with a good grade and the ability to pass onto the next section. The segments will also differ for every student's needs. "Software can adjust lessons according to many variables including the rate of progression of each pupil" (Bennett 24).

Besides being good educational tools, having students exposed to computers will prepare them for the real working world. Oppenheimer writes: "To make tomorrow's work force competitive in an increasingly high-tech world, learning computer skills must be a priority" (Oppenheimer 54). Most jobs today require the applicant to have some experience with computers. Why not raise children that are exposed to computers, so that they have experience that can benefit from them in the future? Oppenheimer adds that "computer literacy should be taught as early as possible;

otherwise, students will be left behind" (Oppenheimer 55). People who have good experience with computers are more attractive to institutions/organizations than people with little experience. One might argue that computer experience can be a part of on-the-job training. This may be true, but it would be more efficient if the worker is already familiar with using computers.

Not only can computers help people in the workforce, but now they can help students get into the workforce. Students can now post their resumes online for businesses and corporations to view. Oppenheimer remarks: Work with computers, particularly use of the Internet, brings students valuable connections with teachers, other schools and students, and a wide network of professionals around the globe. Those connections spice the school day with a sense of real-world relevance, and broaden the educational community (Oppenheimer 59). Instead of looking for a job, students can now let businesses look for them. One advantage of this is that students do not need to worry if they are qualified for the job; if they are not, the enterprise will not contact them. This relieves a lot of the frustration from obtaining a first job.

Computers are indeed a good learning tool. They are not a definitive answer to creating a perfect classroom; they are merely tools that, if used correctly, can improve the human learning process.

References

[1] Bennett, Frederick. Computers as Tutors: Solving the Crisis in Learning. Sarasota: Faben, 1999.

[2] Dyril, Odvard. 'Technology in Education: Getting the Upper Hand.' Technology & Leaning. January 1995. Vol. 15, pp. 38-46

[3]Flores, J., & Flores, B. (2003). The gradual student. Teaching English in the two-year college (ETYC), March , pp. 239–247.

[4] Galbreath, J.(2008) Compressed Digital Videoconferencing. Educational Technology, 35(1), 31-38.

[5] Green, M. Y. (2001). Taking the future in their hands. NEA Today [Electronic Version], 19(8), 24-24.

[6] Holzberg, Carol. 'Technology in Special Education.' Technology & Learning. February 1995. Vol. 15, pp.18-23

[7] Honey, M., Fasca, C, Gersick, A., Mandinach, E. B., &Sinha, S. (2005). Assessment of 21st century skills: The current landscape. New York: EDC Centre for Children and Technology. 110-12

[8] Horrigan, J. B. (2007). A typology of information and communication technology users. Washington, DC: Pew Internet & American Life Project. 65-70

[9] Inoue, Y. (2007). Online education for lifelong learning: A silent revolution. In Y Inoue(Ed.), Online education for lifelong learning (pp. 1–27). Hershey, PA: Information Science Publishing.

[10] International Digital Literacy Panel. (2002). Digital transformation: A framework for ICT Literacy. Princeton, NJ: Educational Testing Service.

[11] Johnson, J. A., Musial, D., Halle, G. E., Gollnick, D. M., & Dupuis, V. L. (2005). Introduction to the foundations of American education (13th ed.). Boston: Pearson 45-47

[12] Jones, K. (2000). Fully wired. Kiplinger's Personal Finance, 54(2), 30-30.

[13] Keen, Peter. 'Network Computers: Do it for the Children.' Computerworld. 16 December 1996. Vol.30, p. 100

[14] McCaslin, M., & Hickey, D. (2001). Self-regulated learning and academic achievement: A Vygotskian perspective. In B. Zimmerman, ed. & D. Schunk(Eds.), Self-regulated learning and academic achievement: Theoretical perspectives (pp. 227–252). Mahwah, NJ: Lawrence Erlbaum Associates.

[15] McGowan, Frank. The Computer Brawl in the Schools and Does It Matter? 24 Oct. 2001.

[16] Mehlinger, Howard. 'Technology Takeover Attenuated' Education Digest. May 1996. Vol. 61, pp. 25-29

[17] Millard, E. (2006). The world of wireless. District Administration, Retrieved July11, 2010, from http://www.districtadministration.com/page.cfm?p=1097.

[18] Oppenheimer, Todd. "The Computer Delusion." The Atlantic Monthly 280 (1997): 45-62.

[19] Papert, Seymour. Mindstorms: Children, Computers, and Powerful Ideas. New York: Basic Books, 1980.
[20] Papert, Seymour. The Children's Machine – Rethinking School in the Age of the Computer. New York: Basic Books, 1993.
[21] Paris, S. G, &Winograd, P. (1998). The role of self-regulated learning in contextual teaching: Principles and practices for teacher preparation.
[22] Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Bockaerts, ed. , P. R. Pintrich, ed. , & M. Zeidner(Eds.), Handbook of self-regulation (pp. 451–502). San Diego, CA: Academic Press.
[23] Postman, Neil. The Disappearance of Childhood. New York: Vintage, 1994.
[24] Randi, J., &Corno, L. (2000). Teacher innovations in self-regulated learning. In M. Bockaerts, ed. , P. R. Pintrich, ed. , & M. Zeidner(Eds.), Handbook of self-regulation (pp. 651–685). San Diego, CA: Academic Press.
[25] Rheinberg, F., Vollmeyer, R., &Rollett, W. (2000). Motivation and action in self-regulated learning. In M. Bockaerts, ed. , P. R. Pintrich, ed. , & M. Zeidner(Eds.), Handbook of self-regulation (pp. 503–529). San Diego, CA: Academic Press.
[26] Rogers, D. and Swan, K. Self-regulated learning and Internet searching. Teachers College Record vol. 106 no. (9)(2004). pp. 1804–1824.
[27] Schloemer, P. and Brenan, K. From students to learners: Developing self-regulated learning. Journal of Education for Business vol. 82 no. (2)(2006). pp. 81–87.
[28] Schuemer, R. (1999). Some psychological aspects of distance education. Hagen, Germany: Institute for Research into Distance Education. (ED 357 266).
[29] Schunk, D. H., ed.,& Zimmerman, B. J.(Eds.). (1998). Self-regulated learning: From teaching to self-reflective practice. New York: Guilford.
[30] Thomas, Charlotte. "Distance Learning Goes the Distance." Family PC Magazine. Oct 2001: 43.
[31] Thornburg, David. 'An Active Agreement.' Electronic Learning. October 1994. Vol.14, Vol. 14, pp. 22-24
[32] Threlkeld, R., &Brzoska, K. (1998). Research in distance education. In B. Willis (Ed.), Distance Education: Strategies and Tools. Englewood Cliffs, NJ: Educational Technology Publications, Inc.
[33] Tornei, L. A. (2007). A theoretical model for designing online education in support of lifelong learning. In Y Inoue(Ed.), Online education for lifelong learning (pp. 1–27). Hershey, PA: Information Science Publishing.
[34] Walery, D. (2004). Wireless technology in k-12 education. T H E Journal, [Electronic Version] 31(8), 48-48.

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