



CREATING CULTURE OF EXCELLENCE – IN IMPARTING E-LEARNING AND TACTICS TO OVERCOME CHALLENGES

**Dr.S.
Vasanthakumari**

Msc (N), PhD(N), MA., PGDEMS., CEIS Department of Pediatric Nursing, School of Nursing and Midwifery, Institute of Health Sciences, Wollega University, Ethiopia, East Africa.

ABSTRACT

E-learning can also be widely coined as "online learning" or "virtual learning". E-learning can be defined as learning facilitated and supported through the use of information and communication technology. E-learning comprises learners / facilitators, e-learning space and resources, e-learning content, e-learning culture. Types of e-learning were e-learning with a physical presence and without E-communication e-learning without the presence and without E-communication, asynchronous, synchronous and blended/hybrid-asynchronous. Blended learning combines e-learning tools with traditional classroom learning. E-learning impacts student's learning positively increasing flexibility, improving efficiency, learning in a informal way, making digital study convenient, helping in better communication and better management. E-learning tools used are e mail, audio chat, online forum, web, video conference. Open source e-learning applications is a program in which the source code is available to the general public. Open source software includes efront, moodle, google class room, mentimeter, kahoot, dokeos, caroline, ilias, olat, sakai project etc. Soft ware platform for assessment includes propofs, google forms, exam soft, read n quiz, ed base, socrative, virtualx, easy LMS, mercermetti, edmodo, testmos Different technological trends of learning includes mobile Learning, micro Learning, internet of things (IoT), cloud based e-Learning, simulation, games, gamification, adaptive e-learning, augmented reality, video e-learning, beacon e-learning, artificial intelligence: SIRI and VIV, google glass. Technologies for audio-visual communication are face Time, skype, ooVoo, google hangouts, zoom, talky, cisco eebEx, go to webinar, ezTalks, adobe connect, google Meet, microsoft team, discussion forums, eE-mail, social media sites, texting and messaging apps, net-etiquette. Challenges and issues in e-learning to be addressed as e-learning is an innovative approach for delivering well-designed, learner-centered, interactive, and facilitated learning environment.

KEYWORDS : E-learning, Synchronous, Asynchronous, Blended learning, Open source e-learning applications, Open source software, Audio visual communications.

INTRODUCTION

E-learning is the demand of the time. It is needed to prepare students and bring suitable modification and improvements in the prevailing system of our educational institution to face this challenge. E-learning can provide communities of practice online in situations where factors such as geographical location would otherwise make it difficult. E-learning can also be widely coined as "online learning" or "virtual learning". E-learning is a significant gift to individual and society where all the learning is done at learner convenient level using the electronically made devices like computer, mobile phone, tablet, smart phone etc. E-Learning provides world class resources of information from which the learners can benefit at their own phase of learning.

E-learning - The letter 'e' in e-learning stands for the word 'electronic'. E-learning pioneer **Bernard Luskin(2001)** explains 'e' as Exciting, Energetic, Enthusiastic, Emotional, Extended, Educational.

DEFINITION - E-learning can be defined as learning facilitated and supported through the use of information and communication technology.

E-learning is otherwise known as a learning system which is based on formalised teaching but with the help of electronic resources. It is internet-enabled learning. It is a store house of education, information, communication, training, knowledge and performance management.

TRUTH OF E LEARNING

- Internet has started reshaping education.
- Education will not be the same in the next decade
- Many formal universities/colleges may not have much attraction by the end of this decade

In an on-line multimedia learning environment teaching & learning is 'one-to-one' (individual) which has more interactivity (in normal classroom, it varies with the class size), learner-centred with learner monitoring & grading system.

NATURE AND CHARACTERISTICS OF E-LEARNING

- E-learning is pedagogy empowered by digital technology.
- Computer enhanced learning
- Technology enhanced learning
- Online learning carried out through the Internet or Web-based technology, with no face-to-face interaction.

IMPORTANCE OF E – LEARNING:

- **For Organization** - Improve training costs, Increased productivity, Decrease material costs, Establish standardization.
- **For Organization as well Community** - Ongoing access to resources, Knowledge management, Encourage sharing of resources.
- **For Learners** - Real time access, Cost effective, Increase interactivity, Good learning environment, Improve retention, Individualized learning.

COMPOSITION OF E-LEARNING:

E learning comprises **learners / facilitators** the actual "organisms" of the e-learning ecosystem, **e-learning space and resources**, in other words the e-learning platform where learning will actually take place and **e-learning content** learners will access, respectively, and finally, **e-learning culture** that sets a positive attitude towards the overall eLearning process and participants interaction with the eLearning course.

MODES OF E-LEARNING : No e-learning - face to face learning, Support e-learning, Blended or hybrid learning - Classroom PowerPoint slides, website course, laptop programmes and Fully e learning - Distance education

According to Negash, et al., Types include:

- E-learning with a physical presence and without E-communication (face-to-face)
- E-learning without the presence and without E-communication (Self-learning)
- E-learning without the presence and with E-communication (Asynchronous)
- E-learning with virtual presence and with E-communication (Synchronous)
- E-learning with occasional presence and with E-communication (Blended/hybrid-asynchronous)

E-LEARNING DELIVERY METHODS/ MODALITIES:

In virtual classrooms, learners are logged on to an online classroom environment at different times (asynchronous) or at the same time (synchronous) as the learning activities are happening.

SYNCHRONOUS LEARNING – In synchronous learning, learning and teaching takes place in real time (same time) while the trainer and learners are physically separated from each other (place shift).

- **INDIVIDUALIZED SELF- PACED E- LEARNING ONLINE** - It refers when the learner assess the information online in the Internet. For example a student is searching for data on some research on the internet or a local network.
- **GROUP BASED E-LEARNING SYNCHRONOUSLY** - It refers when groups of learners are working together in same time through an intranet or the internet. For example one or two way audio and video conferencing.

Examples of Synchronous learning include: listening to a live radio broadcast, watching live a television broadcast, audio/video conferencing, internet telephony, online lectures, two-way live satellite broadcast ,Telephone, Screen Sharing, Chat , Desktop Conferencing, Online seminar .

ASYNCHRONOUS LEARNING - In asynchronous learning, the trainer prepares the courseware material before the course takes place. The learner is free to decide when he wants to study the courseware.

- **INDIVIDUALIZED SELF- PACED E- LEARNING OFFLINE** - This refers when an individual learner is using database or a computer assisted learning package offline while not connected to an intranet or the internet. For example a learner working alone using a hard drive, a CD or DVD.
- **GROUP BASED E-LEARNING ASYNCHRONOUSLY** - It refers when groups of learners are working over an intranet or the internet and they exchange among themselves with a time delay. For example online discussions through emailing lists.

Examples of Asynchronous learning include: Self paced courses taken via Internet or CD-Rom , Videotaped classes ,Stored audio/video Web presentations or seminars ,Recorded audio tapes, Q & A mentoring, Reading e-mail messages , Fax, E-mail ,Newsgroups ,Computer Based Training,Quick Reference Guide .

OTHER METHODS INCLUDE : Instructor-led group, Self-study with subject expert, Web-based: blog-Wikis-forums, Computer-based (CD-ROM) training, Video/audio streaming, Web-based lectures and presentation.

BUILDING AN E-LEARNING CULTURE:

Learner: Self-directed, Self-motivated, Self-regulating, Lifelong learning.

Teacher: Develop knowledge & skills, Understand learning and its need, Facilitate learning, Create learning opportunities.

Administrator: Create Learning environment, Provide ICT infrastructure, Resources for lifelong learning.

BLENDED LEARNING: Blended learning combines e-learning tools with traditional classroom learning to ensure maximum effectiveness.

It offers:

1. Face to face interaction thereby leading to social benefits.
2. Personalized system of instruction which requires minimum interaction.
3. Improved retention and reinforcement through follow up mechanism on the web.
4. Highly flexible based on the learning style and the level of audience.

E-TEACHING & E-TEACHERS

E-teaching is the appreciation of live teaching with streaming lectures, whiteboards, downloadable slide sets and discussion forum. E-teaching is an automation of an existing teacher centered educational approach. The real work is in creating content and learning management systems that support e-learning.

E-teachers are teachers who work in an internet environment in both regular and virtual classroom situations. They build new concepts of working in time and space. They find new learning resources as they interact with information, materials and ideas with their students and colleagues that support e-learning.

Teacher's Obligation - Use all available technology ,Lay foundation for Lifelong learning , Incorporate 'old' & 'new' , Encourage collaborative learning

IMPACT OF E-LEARNING:

Positive impact on students : More flexibility ,Improves efficiency ,

Informal way of Learning, Increases motivation , Digital Study is Convenient for learners, Helps in better communication and better management, Personality development , Increases social skills , Increase interest in learning, Deepens understanding, Promotes collaborate learning, Gives new approach to learning and working, Provides new ways of interacting, Helpful for self-evaluation, Useful tool to address students with different learning and cognitive styles, Self-pacing for slow and quick learners, Reduces stress and increases satisfaction.

Negative impact on students: Students may feel isolated, Parents may have concerns about children's social development, Students with language difficulties may experience a disadvantage in online environment when the text contents are heavy.

E-LEARNING TOOLS: Scope of e-mail, audio chat, online forum, web, video conference

OPEN SOURCE E-LEARNING APPLICATIONS: Open source refers to a program in which the source code (programming language) is available to the general public for use and /or modification from its original and redistribution.

OPEN SOURCE SOFTWARE:

eFront: It is an open source eLearning platform through an icon-based user interface. It offers tools for content creation, tests building, assignments management, reporting, internal messaging, forum, chat, surveys etc

Moodle: Modular Object-Oriented Dynamic Learning Environment is a free source e-learning software platform and modular design allowing any developer to create additional modules and features.

Google Classroom: Helps students and teachers organize assignments, boost collaboration, and foster better communication.

Mentimeter: Helps to interact with the audience using real-time voting. No installations or downloads required and it is free.

Kahoot: It is a free game-based learning platform that makes it fun to learn in any subject, in any language, on any device, for all ages.

Dokeos: It is an open source online learning software.

Caroline: It is an open source of e-learning and e-working platform allowing teachers to build effective online courses and to manage learning and collaborative activities on the web.

ILIAS: It is a powerful Open Source Learning Management System for developing and realizing web based e-learning.

OLAT: It is free software and is open source Learning Management System that supports any kind of online learning, teaching, and tutoring with few educational restrictions.

SAKAI project: The Sakai CLE is a free, community source, educational software platform distributed under the Educational Community License (a type of open source license). The Sakai CLE is used for teaching, research and collaboration.

SOFTWARE PLATFORM FOR ASSESSMENT

Propofs - Knowledge Management Software for Quizzes, Tests, Training, Flashcards, Knowledge Base.

Google forms, Exam soft, Read n quiz, Ed base , Easy LMS, Mercermetti, Edmado, Testmos

Socrative -our classroom app for fun, effective engagement and on-the-fly assessments Virtualx –online exam

DIFFERENT TECHNOLOGICAL TRENDS OF E-LEARNING

Mobile Learning , Micro Learning , Internet of Things (IoT) , Cloud based E-Learning ,Simulation , Games, Gamification ,Adaptive E-Learning ,Augmented Reality , Video E-Learning ,Beacon E-Learning ,Artificial Intelligence: SIRI and VIV, Google glass

Technologies for audio-visual communication – Face Time (iOS devices),Skype , OoVoo , Google Hangouts, Zoom (Desktop), Talky, Cisco WebEx, Go To Webinar, ezTalks, Adobe Connect, Google Meet, Microsoft team, Discussion forums , E-mail ,Social media sites ,Texting and messaging apps ,Net-etiquette

Digital Tools to Manage and Assist Learning -Online highlighting and annotating tools ,Task organizing tools ,Note taking tools ,Time management tools ,To do lists

ADVANTAGES OF E-LEARNING

- Class work can be scheduled around personal and professional

work

- Reduces travel cost and time
- Learners may have the option to select learning materials that meets their level of knowledge and interest
- Learners can study wherever they have access to a computer and Internet.
- Self-paced learning modules allow learners to work at their own pace
- Flexibility to join discussions in the bulletin board threaded discussion areas at any hour, or visit with classmates and instructors remotely in chat rooms
- Helps in integration of information, communication and technology, facilitate human resource planning , build self confidence among learners , it enhances innovative teaching and promotes self-directed learning
- E learning is convenient and flexible for the learner, saves time and place for learning
- It promotes internet use and with access to the net 24x7, a learner can train oneself anytime and from anywhere also
- It increases retention and application of information
- Proof of completion and certification is also automated and able to link the various resources in several varying formats
- It is a very efficient way of delivering courses online
- Due to its convenience and flexibility, the resources are available from anywhere and at any time
- Everyone, who are part time students or are working full time, can take advantage of web-based learning and it promotes active and independent learning
- There is no need to depend on anyone for anything and not only one can train self on a day to day basis, but also on weekends or whenever there is a free time to and it has no hard and fast rule
- Through discussion boards and chats, will be able to interact with everyone online and also clear doubts if any
- The video instructions that are provided for audio and video learning can be rewind and seen and heard again and again if cannot understand the topic during the first time around
- Easy access by breaking all barriers of time, place and distance
- Used for disadvantaged children
- It is qualitative and a effective media , has a different learning styles
- Promotes Play-way spirit and learning by doing
- It is interesting and motivating , has On-line, Off-line and live interaction , promotes self-learning and self-improvement with technical and vocational skills , provides evaluation and feed back

DISADVANTAGES OF E-LEARNING

- Unmotivated learners or those with poor study habits may fall behind
- Lack of familiar structure and routine may take getting used to
- Students may feel isolated or miss social interaction
- Instructor may not always be available on demand
- Highly expensive , decreases manual contribution and increases dependence on ICT
- Misuse of the technology provided
- Some forms of e learning perceived as isolating from the personal touch
- Some learners may not have the IT Skills needed to take advantages of e learning
- Slow or unreliable Internet connections can be frustrating
- Managing learning software can involve a learning curve
- Some courses such as traditional hands-on courses can be difficult to simulate
- Most of the online assessments are limited to questions that are only objective in nature
- There is also the problem of the extent of security of online learning programs
- The authenticity of a particular student's work is also a problem as online just about anyone can do a project rather than the actual student itself
- The assessments that are computer marked generally have a tendency of being only knowledge based and not necessarily practical based.
- Requires knowledge and skills
- Lack of equipment and lack of provision for teacher training programme
- Feeling of isolation, negative attitude
- Adverse effect on health and lack of co-curricular activities
- Technical defect

THE FACTORS AFFECTING E-LEARNING ACCEPTABLE AMONG STUDENTS : Unawareness , Cost involvement to learn computer technology , Low computer literacy level, Lack of change and awareness even after introduction of ICT in education system in teaching and learning approaches , Level of proactive and discipline is less in e-learning when compared with traditional learning in developing countries.

OPPORTUNITIES:

- Enhancement in enrolment of students into educational system , provides many learning opportunities to huge population
- Increase in the demand for higher education could be overcome by implementing e-learning
- The up-gradation of learning and teaching process could be overcome through implementing e-learning in the education system
- Funding from multilateral organization and international agencies which avoid financial issues in implementing technologies supporting e-learning

ONLINE CLASS TEACHING TIPS:

- Online sessions can be enhanced with synchronous online classes or asynchronous video instruction
- Provide clear directions – It should be concise and avoid ambiguity
- Learn students names, be friendly, chat with them before class starts
- Use interactive questions throughout the online lecture to promote involvement
- Online instructors can foster helping , trusting , caring relationships and address individual learning needs
- Take time to interact with students and address their different learning styles in your presentation
- Encourage participation
- Many online classroom formats have features such as polls, breakout rooms, and whiteboards. Familiarize these tools and use them frequently
- Giving homework is essential in an online environment. Engage students , keep learners engaged during the week with assignments, such as journals, readings, projects, discussions, ungraded practice quizzes, document downloads, or short papers. Homework also gives students a shared experience outside of class
- Offer technology support - Students should know what level of technology is necessary to participate in and complete the online course, including specific browsers or computer programs
- Give a break - Students need to stand up and move around occasionally, so give them frequent breaks. These breaks can be a good time to encourage peer to peer interaction through a group chat feature, which positively contributes to student learning
- Stress organization - succeeding in online coursework requires self-motivation and organization. Offer course orientation (either before the class begins or during the first session), calendar reminders, frequent assignments, and occasional e-mails to keep students organized

CHALLENGES FACED IN E-LEARNING : Lack of human contact , Problem with adaptiveness , Difficult in Mobile Learning ,Lack of focus ,Lack of management ,Boredom , Lack of Reporting , Best for knowledge but less effective for psychomotor and affective domains, Less group interaction, Lacks self-discipline, dedication and motivation ,There are diversity of browsers, operating systems and mobile devices, More distractions due to lack of control, Internet issues related to connection and strength , Availability of too much data, Evolving nature of e-learning technology, Personal beliefs and attitudes as well as privacy and safety issues , Lack of awareness and systematic approaches towards technology , Lack of devices , technical support and administration support toward the implementation and attitude towards technology and transforming education system ,Lack of support from government on financial front, lack of efficiency and , qualified trainer to teach the E-learning technology, Poor availability of software and hardware that supports the e-learning environment and quality or standard of education

CHALLENGES FOR TEACHERS:

- **Creativity** –develops the creative thinking processes of educators.
- **Lifelong learning** –deepen their knowledge and increase their skills.
- **Building a community** –stay connected with colleagues from all

over the world, as well as to share ideas and gain inspiration.

• **Self-reflection , Observation , Feedback**

ISSUES OF E-LEARNING: Availability of funds , Level of computer literacy, Commitment ,Confidentiality ,Empowerment ,Cyberphobia

CONCLUSION

E-learning is an innovative approach for delivering well-designed, learner-centered, interactive, and facilitated learning environment. It has become a worldwide phenomenon in the new technological economy, crossing oceans and reaching to remote villages. In rapid changing world, there is a difficulty to overcome the learning challenges and the possible achievements. To bridge this gap, the concepts such as e-learning, e-teaching, e- teachers has become the part of effective education.

REFERENCES:

1. Mahmoodi Mohammad Taghi , Maleki Shahab, Sanisales Zohre.. The Impact of E-Learning on Creativity and Learning in Physiology Course in Nursing Students of Shahrekord University of Medical Sciences.Future of Medical Education Journal .2015; 5(4):25-29.<https://www.sid.ir/en/journal/ViewPaper.aspx?ID=555373>.
2. Negash, S., et al. Handbook of Distance Learning For Real Time And Asynchronous Information Technology Education. Hersey, IGI Global: Information Science Reference.2008 May:Page no:406. DOI: 10.4018/978-1-59904-964-9.
3. Matti Haveril.The Influence of Experience, Ability and Interest on e-learning Effectiveness .European Journal of Open, Distance and E-Learning.2009. <https://eric.ed.gov/?id=EJ911761>.
4. Mirriahi N., et.al.Blended learning innovations: Leadership and change in one Australian institution .International Journal of Education and Development using Information and Communication Technology (IJEDICT) .2015; 11(1) : pp. 4-16 . <https://files.eric.ed.gov/fulltext/EJ1061471.pdf>.
5. Baker, Celia . Blended learning: Teachers plus computers equal success. Desert News. 2013 March. <https://www.deseret.com/2013/1/5/20511952/blended-learning-teachers-plus-computers-equal-success>.
6. Kaur Manprit. Using Online Forums in L language Learning and Education.Inquiries . 2011; 3(3):1. <http://www.inquiriesjournal.com/articles/414/using-online-forums-in-language-learning-and-education>.
7. Muhammad Tanveer Afzal, Asma Safdar, Munnaza Ambreen. Teachers Perceptions and Needs towards the Use of E-Learning in Teaching of Physics at Secondary Level. American Journal of Educational Research. 2015; 3(8):1045-1051. doi: 10.12691/education-3-8-16.
8. Haythornwaite C, Andrews R, Kazner M M , Preston C. Theories and models of and for online learning. First Monday .2007 October;12(8).DOI: 10.5210/fm.v12i8.1976
9. Gautam Priyanka. Advantages And Disadvantages Of Online Learning . 2010.<https://elearningindustry.com/advantages-and-disadvantages-online-learning>.
10. The Disadvantages of Online Learning | Elearning Companion.. N.p., n.d. Web. 2013 Feb. available at:<http://www.elearning-companion.com/disadvantages-of-online-learning.html>.
11. Oludipe O., Fatoki O. K., Yekini N. A., & Aigbokhan E E. Cloud-Based E-Learning Platform: From the Perspective of 'Structure' and 'Interaction'.International Journal of Innovation and Research in Educational Sciences. 2014.1(1).
12. Clark C Ruth, Mayer E Richard.E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning, 4th Edition. Pfeiffer publications.March 2016 : Page no:528. Wiki.Laptop.org.
13. Strengths and Weakness of Online Education." Illinois University. 2008. May.<https://www.uis.edu/ion/resources/tutorials/online-education-overview/strengths-and-weaknesses/>.
14. Pappas Christopher. Elearning. 2014.<https://elearningindustry.com/5-common-elearning-challenges-overcome>.
15. <https://e-student.org/what-is-e-learning/>
16. <https://elearningindustry.com/9-benefits-of-elearning-for-students>.
17. <https://elearmmag.acm.org/featured.cfm?aid=1104968>.
18. <http://www.aus.ed>
19. https://psychology.wikia.org/wiki/Electronic_learning.
20. <https://www.intel.la/content/dam/www/program/education/us/en/documents/positive-impact-of-elearning.Pdf>
21. <https://www.igi-global.com/dictionary/administrators-assessments-online-courses-student/8785>