

E- LEARNING : MEASURES FOR EFFECTIVE DISSEMINATION AND IMPLEMENTATION

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E-Learning in today's ever-dynamic world has not only proved to be an innovative approach towards the creation and dissemination of knowledge but E-Learning is also the future of education and a necessity of the near future. E-Learning, its concept, knowledge, invention, and growth in the current world scenario has been primarily developed and evolved from the experiences of learners and teachers in education using interactive Internet technologies to create online and technology-based learning environments that support learning communities. Therefore, there is a need for exploration and research in the dynamic field of e-learning and the processes involved in adopting and adapting E-Learning with regard to the different learning contexts and needs. Therefore it is important to understand the inherent features of the learning before the successful implementation of E-Learning. E-Learning to be successful requires a major change in the national, institutional, and organizational environment in which it has to be adopted.

Key Words : E- Learning , Technology , Effective implementation

Introduction:

E-Learning in today's ever-dynamic world has not only proved to be an innovative approach towards the creation and dissemination of knowledge but e learning is also the future of education and a necessity of the near future. E-Learning, its concept, knowledge, invention and growth in the current world scenario has been primarily developed and evolved from the experiences of learners and teachers in education using interactive Internet technologies to create online and technology-based learning environments that support learning communities. Therefore, there is a need for exploration and research in the dynamic field of e-learning and the processes involved in adopting and adapting e-Learning with regard to the different learning contexts and needs. Therefore it is important to understand the inherent features of the learning before the successful implementation of e-Learning. E-Learning to be successful requires a major change in the national, institutional, organizational environment in which it has to be adopted.

Definition :

E- Learning : E-learning is a learning system that is based on formalised teaching but uses electronic resources. E-learning, also known as electronic learning or online learning, is the process of acquiring knowledge through the use of electronic technologies and media.

Technology : Technology in simple words is the application of scientific knowledge to the achieve the practical goals of human life, or, as it is sometimes referred to, to the modification and manipulation of the human environment.

Effective Implementation : Something which is s effective and works well to achieve the results predicted or desired. The correct application of a methodology which leads to an increase in the probability of achieving success in a task or project undertaken

Objectives of the Study

1. To study the effective Implementation of e-learning through the means of creditability
Identifying and organizing course content
2. To study the efficient modes of delivery formats to ensure the reception of the e-content by the learners in the desired manner

Methodology

The study aims to explore the various instructional methods which need to be adopted for effective dissemination and implementation of E-learning. Relevant research articles and reports were discovered for this review using the databases of Google scholar, ResearchGate, and other research journals

Limitations of the Study:

The study aims to understand the various instructional method to be adopted for effective implementation of e-learning & the delivery formats adopted to ensure the reception of the e-content by the learners in the desired manner. However, the study does not cover the various hardware and other tools required for effective implementation of e-learning.

Review of Literature :

Researchers have discovered that understanding the organisational culture and synchronisation and adaptation of the e-learning strategy to the cultural environment of the organisation is more likely to result in success. (Lea 2003; Newton, Ellis & Hase 2002; Rogers 1995). Lea (2003, p. 218) emphasise on the need for inclusion of the culture of learning which is inherent and to raise the level of awareness and inclusion to ensure the development of effective e-learning which include factors such as attitude, approach and nature of the prospective learners and the quantum of time available with the learners train and the 'tone of voice' that the organisation uses. Further, the authors' previous case study research (Newton, Hase & Ellis, 2002) suggest the importance of aligning e- Learning implementation with organisational culture, organizational, structure, organisational priorities and learners' needs. It is also important to understand the various aspect of e-learning, e-learning by many has been interpreted as online learning , though the online aspect of learning is one of the most important factor of e-learning it is not the only factor . E-learning in a broader sense implies the act of acquiring knowledge by use of and electronic medium.

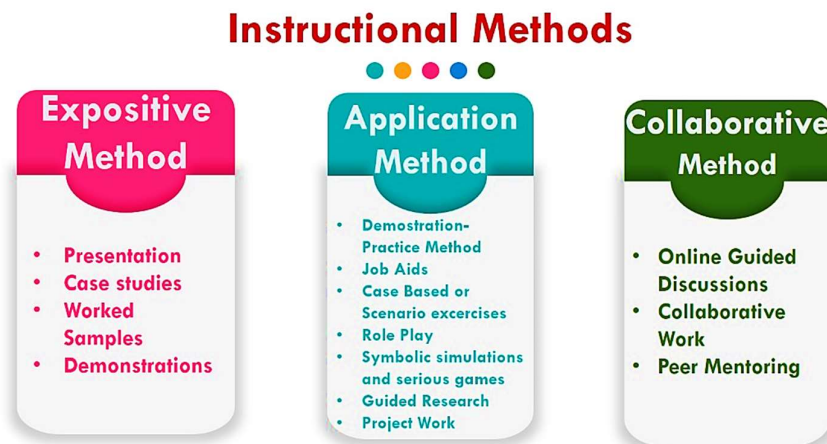
Finally , using artificial intelligence, machine learning, and deep learning to transform the e-learning Industry, this final sub-field formed a recent research trend for many scholars ([Bhardwaj et al., 2021](#)) Implementation of E-learning techniques however is not a job which can be achieved over night and it requires a rigorous and systematic approach towards understanding the need of the learner , the market , global acceptance , creditability , the awareness of various social and cultural differences and their impact on the behavior of the learner in order to develop a strong and reliable e-learning platform which

would provide a learner friendly individualistic learning environment and the knowledge thus acquired will gain with high reliability, credibility and relativity with the currents dynamics of the world.

Discussion : Measures for Effective dissemination and implementation

The effective implementation of e-learning & the delivery formats adopted to ensure the reception of the e-content by the learners are based on the use of the factors mentioned below in an ideal mix :

- **Expositive methods** - which emphasize “absorption” of new information. Presentations, case studies, working examples, and demonstrations are examples of expositive approaches.
- **Application approaches** - which stress the active processes that students employ to complete procedural and principle-based activities and gain new information. Application methods include demonstration-practice methods, exercises based on scenarios or cases real of fictional , job aids, use of role play technique , creation of simulative environment and various subject matter focused, practical research under expertise guidance , and project work.
- **Collaborative methods** - which emphasize the social dimension of learning and engage learners sharing knowledge and performing tasks in a collaborative way, Which include Online guided talks, collaborative work, and peer tutoring are among them.



The various instructional methods can be effectively delivered in a variety of formats, using a varied types of multimedia and communication tools.

A presentation, for example, can be delivered as a Power Point file or in form of a dynamic manner using doodle videos or as a recorded (or live) video presentation. An online discussion can take place in a discussion forum or via a live online call using various tools such as Teams, Zoom, Skye etc.

Additional factors related to learners, technological and organisational constraints (e.g., budget), and available time should be studied to select the most appropriate tools for effective delivery and delivery formats.

D) Expositive methods

Under the expositive methods the e-learners are required to listen, read and observe the e-content related to the concerned subject/topic under study . The delivery of the information and subject specific knowledge is passed on to the e learner by an instructor or a Subject Matter Expert (SME) , this can be supplemented by various techniques such as quizzes and exercises to assess learners' level of

understanding or memorization of the learning material. Expositive methods are crucial to acquire knowledge, however they may also be integrated with other ways to create a variety of learning courses. The expositive methods are typically for courses to orient and convey basic ideas of the subject/topic before proceeding towards the practical aspects and advanced stages. Dynamically designed Presentations, especially those in video format, can also be utilised to sensitise and impact learners' views on the various topics under study.

Expositive methods include:

- Presentations : structured material on a certain topic
- Case studies : genuine relevant situations connected to the topic
- Worked examples : i.e. topic related examples with specific comments and references to the theoretical aspects.
- Demonstrations : illustrations to indicate various means and methods for completion of tasks.

The following means can be adopted to deliver the e-Learning sessions :

- Non-interactive instructional content, such as papers and PowerPoint presentations.
- E-lessons that are interactive incorporating the blended approach of text, graphics, music, animations, and practise (i.e. questionnaire and proper feedback).
- Subject Expert or Subject instructor-led presentations that are aired in real time with interaction of e-learners or recorded sessions for learners to watch at any time with a dedicated time for clarification of queries. The topic related sessions which are made are available in audio and video formats including (podcasts).
- Virtual Classrooms and webinars: The instructor/subject expert/ subject teacher presents the subject/topic to the class/group of e-learners simultaneously connected to the platform. E-Learners can use means such as audio conference, video conference, or online chat to communicate / interact with the instructor/subject expert/ subject teacher, ask queries and receive clarification which can be done by the use of various software's which are available for subscription or purchases or develop specialized software's to facilitate the virtual classroom learning. A variety of synchronous software's, tools and techniques such as an online whiteboard application, sharing across applications or , or video audio conferencing, and chat, are frequently included in these systems. These technologies allow students to communicate with the allotted instructor/subject expert to find resolutions to their queries.

II) Application methods

Application methods involve the practice of learners being engaged in practical tasks through application techniques, which can range from basic exercises (for example demonstration-practice approach) to more complicated methods such as simulations or research activities.. It is beneficial to have a tutor or teacher to give advice and support learners' reflection while employing these strategies.

1. Demonstration-Practice method

This technique employs directed learning to teach a procedure - often a software operation, for example creating a realtime map with the use of a Geographic Information System (GIS) software. After an expert or teacher has demonstrated a method, learners are required to practice on a system or software

In e-learning, this method can be realized through the following methods

- Interactive e-lessons that allow learners to interact with the system by use of animations and operational simulations in a combination (based on a series of operations) and receive feedback on his/her actions.
 - Virtual classroom in which the instructor shows the application using application sharing tools and allows learners to take control of the application to practice it.
2. **Job aids** : Job aids provide just-in-time knowledge. This technique employs directed learning to teach a procedure - often a software operation, for example creating a real-time map with the use of a Geographic Information System (GIS) software. After an expert or teacher has demonstrated a method, learners are required to practice on a system or software. This method can be realized through the following delivery formats for job aids
- Checklists, technical glossaries, and manuals are examples of printed publications.
 - Online help or more sophisticated interactive online systems
3. **Case-based or scenario-based exercises** : Exercising based on cases or scenarios Exercise based on case study method to improve a given domain's cognitive skills. Learners are challenged to apply their knowledge and ideas to a real-world scenario. This method is usually centred on a scenario, such as a difficult situation during which the learner has to make decisions and judgements based on a number of options. The Learners are provided with an overview of the different assessment methods, criteria and information about the specific programme to be assessed. An expert then comments on the learners' choices.

4. Role play

Role play is used to develop interpersonal skills. Learners are asked to apply behavior-related principles (e.g. communication principles) to a concrete situation. Feedback is provided to learners about their behavior.

For example, division of learners in two groups where one of the learners acts as a policymaker and the other a subject related area specialist. The expert must persuade the policymaker to implement the expert's suggestions. The tutor/instructor evaluates the pupils' performance after the simulation.

In e-learning, this method can be realized through two delivery formats: role-play

- Electronic simulations based on branching scenarios (also known as experiential simulations), in which each learner's decision results in a feedback loop. The response is given in the form of a follow-up situation that leads to further options.
- Learners participate in role plays as a group activity utilizing communication method such as chat, audio or video conferences, and discussion forums; each learner is allocated a certain role. Learners collaborate with one another to attain personal goals and/or a collective aim.

5. Symbolic simulations and serious games

To acquire a scientific knowledge of complex systems, symbolic simulations are utilised. (e.g. ecosystems) or strategic management skills in organizations. To understand and learn the underlying dynamics learners have to interact with the system.

This strategy may be implemented in e-learning through

In e-learning, symbolic simulations based on the mathematical framework of a system can be used to simulate a biological, social, or economic system.

Educational games are interactive simulations with a competitive element, a difficult objective, and well-defined rules and restrictions.

6. Guided research

The tutor or lecturer or subject expert assigns the students to undertake research on a certain topic. The teacher can assist the student in gathering and arranging data. The instructor provides suggestions to learners on how to find the required information and how to illustrate the information thus acquires in a systematic manner.

This strategy may be implemented in e-learning through Delivery formats for guided research

- For communication between the student and the teacher or tutor or subject experts, discussion forums, e-mails, chats, and audio or video conferences are used.
- Wikis, blogs and shared documents for presenting results.

7. Project work

The tutor or teacher or subject expert allots to the student the task of creating a product or project by applying previously acquired ideas and concepts to his or her unique situation.

In e-learning, this method can be realized through

- For communication between the student and the teacher or tutor or subject experts, discussion forums, e-mails, chats, and audio or video conferences are used.
- Wikis, blogs and shared documents for presenting results.

III) Collaborative methods

Collaborative methods are based on dialogue and discussion among facilitators and learners. They add a social dimension to the learning experience, applying the principles of social constructivism and collaborative learning.

They allow learners to benefit from having discussion partners and getting personal feedback.

Effective and continual collaboration in the key to success for teaching and learning methodology, especially in the digitised learning environment where there is little or no communication between the learner and facilitator., the foundation of collaboration is based on interaction and discussion between the learners and facilitators using digital medium efficiently between facilitators and learners. Through the use of social constructivism and collaborative learning concepts, they provide the learning experience a social component.

They enable students to gain from having conversation partners and receiving individualised feedback.

1. Effective Guided Online Interactions

The purpose of Guided Online Interactions is the promotion of meaningful learning leading to enhancement of knowledge and development of skills. In order to encourage and direct contemplation and critical thought, the facilitator poses questions to the participants. These conversations frequently serve as a supplement to other techniques like presentations, research, or case-based exercises. Guided conversations also help students communicate and share knowledge.

This strategy can be implemented in e-learning through used various modern tools, applications and software's which can be accessed by the learners and facilitators on PDA's.

2. Collaboration

Students collaborate to complete a variety of tasks, including assignment or project planning, evaluation, and analysis. By working in groups and teams, communicating among themselves, debating, and negotiating, the students improve their interpersonal skills in addition to domain-specific knowledge and problem-solving abilities.

This technique can be applied to online learning by :

- Communication amongst students through discussion boards, emails, chat rooms, or audio or video conferencing, customized applications, Learning Management Systems and software's.
- Wikis, blogs, and shared documents for group projects.
- Effective use of Social media etc.

3. Peer Mentoring

Students support, monitor and complement with one and another, this creates an opportunity to developing tutoring techniques whilst learning from each other. This approach is especially useful for the concept of train-the-trainer initiatives.

Customized Peer Mentoring Platforms can be developed to ensure security and effective monitoring and guidance to the learners.

Conclusion :

E- learning though fast emerging as the new era of education and also understood by many as the future of education cannot be successfully implemented an evaluated unless it successfully passes through the stages of knowledge creation, dissemination & adoption by the learner and the learning environment for which it had been designed . E-learning proves to be of importance where there is a significant amount of content to be delivered to a large number of learners i.e mass dissemination of knowledge, learners come from geographically dispersed locations, learners are not able to acquire education through the current formal channels, learners have limited mobility, learners are limited by the time to be devote towards learning and need a flexibility in the learning approach, learners have at least basic computer and Internet skills and the basic knowledge of using technological means of communication , learners are required to develop homogeneous background knowledge on the topic, learners are highly motivated to learn and appreciate proceeding at their own pace, content needs to be reused for different learners' groups in the future and there is a need to collect and track data.

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