
E-Knowledge Transfer; Processes of Digitalization of Teaching Materials; New Technologies in E-Learning; E-Pedagogy vs. Conventional Pedagogy: A Comparative Study

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Abstract: - *Various technologies have proved that today we are flourishing through Conventional Pedagogy and E-Pedagogy education and we cannot hide any information in the world. Today, we see how much innovation, innovative technology is developing rapidly. Shows that human beings are looking for a better way of life. It is certain that this technology is going to be more flexible in the changing yoga. Traditional and modern education material is being grown in a big way, but it is our goal to handle traditional and modern literature. It has been studied in the present article itself.*

Keywords: - E-Knowledge, Transfer, Teaching, Materials, E-Pedagogy, Conventional Pedagogy.

1. Knowledge Transfer:-

Knowledge transfer is a term used to encompass a very broad range of activities to support mutually beneficial collaborations

between universities, businesses and the public sector. Knowledge transfer is a 'contact sport'; it works best when people meet to exchange ideas, sometimes serendipitously, and spot new opportunities.

It's all about the transfer of tangible and intellectual property, expertise, learning and skills between academia and the non-academic community. It's also well recognized by government and funders as an important return on the UK's investment in academic research, one that provides a significant driving force for enhancing economic growth and societal wellbeing. For academics, KT can be a way of gaining new perspectives on possible directions and approaches for research. This two-way exchange element of Knowledge transfer is at the heart of successful and sustainable collaboration.

Academics are often asked to consider the potential audiences, impact and

applications for their work, and increasingly there are opportunities to apply for grants specifically with non-academic collaborative partners. In response, Research Councils UK (RCUK) has recently launched the RCUK Knowledge Exchange and Impact as a single point of access for those interested in Knowledge transfer schemes and activities. (*Tim Minshall, Cambridge university*2009) www.cam.ac.uk/research/news/what-is-knowledge-transfer

2. Processes of Digitization of Teaching Materials:-

Information technology has reformed each sector it has grasped and it is currently in the promising phases of altering academia. In the coming decades if information technology has its approach, education will be far changed, more immersive and hopefully more constructive to the people than it is today. Digitization in education industry has totally changed the learning and also the teaching process to a very great extent.

Technology has made imparting education stress-free for both students and educators. Schools are gradually implementing digital teaching solutions to involve with a generation of learners

familiar with the likes of PlayStations and iPods and trying to make the classroom atmosphere more broad and participatory. Information and communication technology in education has facilitated student understanding, students are perhaps the most ready and exposed to external education but they are in the best situation to absorb what comes up in the classroom. Currently students live in a world that is constantly linked and alive outside the class room, so traditional methods won't work now. The true revolution in education can only be achieved via digitization of education so that students can learn at their own speed both within and outside the classroom. Their learning upgrades while they carry on to advantage from fostering, mentorship and direction of their teachers.

Digitization is prompting higher education also as never before. Nothing is unavoidable and we have the supremacy to form the way we use technologies. The digital revolution is edging its way into the classroom. It is now possible to have an archive in every classroom or even in the pocket. As Google Chief Eric Schmidt has said, 'the internet isn't making inevitable change faster; it has become the engine of change.

3. What is the Concept of E-learning

Technologies:-

E-Learning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online. Quite simply, e-learning is electronic learning, and typically this means using a computer to deliver part, or all of a course whether it's in a school, part of your mandatory business training or a full distance learning course.

3.1 New Technologies in E-Learning:-

E-learning is not just about self-paced and solo learning experiences. Social and collaborative learning can also be achieved through the use of technology, and so often also fall under the umbrella of online or digital learning.

3.2 Virtual classrooms :-

Where an online tutor can interact in real time with learners, give presentations, ask questions, run polls, and facilitate group activities.

3.3 Audio Conferencing:-

Audio Conferencing is a telephone meeting conducted between multiple separate callers (three callers define a "conference"). The type of telephone used can vary but typically an audio conference includes attendees that use handheld wired telephones (such as those at a person's business office or home), conference room speakerphones that can be shared by several people, or individual cellular or mobile telephones. Audio conferencing is sometimes called "teleconferencing" and traditionally means using a telephone instrument to conduct a business meeting

3.4 Projector:-

Many teachers find chalkboards to be almost a thing of the past with the advent of projectors in the classroom. Rather than writing notes across a board, teachers can make use of PowerPoint presentations, images and even film as teaching tools through the use of projectors. Consequently, teachers and students alike find projectors to be useful classroom devices. Easier Note Taking, Greater Teaching Versatility, Better Use of Class Time, Better Student Presentations.



3.5 Use of Internet in Teaching Field:-

With the use of the internet, human life has become much easier, and today everything is seen in the use of the Internet. In the field of that education, banking sector, social, political, international relationship and so on, we see that internet is being used. Any information you get in a second and you want it there. But getting this information requires a lot of money to be realized so that acquiring new technology is difficult for some to acquire. The internet is the ultimate inventor who turns the life of a human being into a lifelong and a man with a lot of heat.

3.6 Using of Podcasts in teaching material:-

The Serial podcast is played through an I-Phone. A podcast is an episode of digital audio or video files which can download and listen to. It is often available for subscription, so that new episodes are automatically downloaded via web syndication to the user's own local computer, mobile application, or portable media player.

1) The word originated as a portmanteau of "iPod" (a brand of media player) and "broadcast". The files distributed are in

audio format, but may sometimes include other file formats such as PDF or EPUB. Videos which are shared following a podcast model were called video podcasts or podcasts. The distributor of a podcast maintains a central list of files on a server as a web feed that can be accessed through the Internet. The listener or viewer uses special client application software on a computer or media player, known as a pod catcher, which accesses this web feed, checks for it updates, and series in any new files. This process can be automated to download new files automatically, which may appear as though new episodes are broadcast or "pushed" to them. Files are stored locally on the user's device, ready for offline use.

2) There are many different mobile applications available for people to subscribe and listen to podcasts. Many of these applications allow users to download podcasts or streaming them as an alternative to downloading. Many podcast players (listen as well as dedicated devices). Some have labeled podcasting as a converged medium bringing the audio, the web, and portable media players, as well as a disruptive technology that caused radio business in some people to create audiences,

consumption, production, and distribution about preconceptions on reconsideration. .

3) Podcasts are usually free of charge to listeners and can often be created for little to no cost, which sets them apart from the traditional model of "gate-kept" media and production tools. Podcast creators can monetize their podcasts by allowing companies to buy ad time, as well as via sites such as Patron, which provides special extra and content to listeners for a fee. Podcasting is very much a horizontal media [4] form - producers are consumers, consumers may become producers, and both can engage in conversations with each other. <https://en.wikipedia.org/wiki/Podcast>.

4. Why should the digital era go?

Why do organizations opt for e-learning? It's not just about cost savings. With the digital and Smartphone revolution that's boomed over the last ten years, bringing about changes in the ways we communicate and work together, modern-day learners want and expect learning content that's available on any device, anywhere, and at any time. They also want support at a point of need - not somewhere else, like a classroom far away. A 2016 report from Towards Maturity on the divide

between what corporate L&D teams provide and what learners want, found that:

- 77% rate working in collaboration with others as essential or very useful
- 70% think online learning has had a positive impact on job performance
- 70% use their own Smartphone, 52% their own tablet for learning.

Digital solutions that support self-paced and social/collaborative learning are in-sync with how modern-day learners operate, and help deliver learning at a point of need - supporting performance improvements there and then. Other benefits include:

1. Freedom to go wrong, privately.
2. Simulative environments build competence, safely.
3. Higher consistency of messaging, across global organizations.
4. Increased learner control.
5. Ability to tailor and personalize learning, which is more likely to stick.
6. Social and collaborative tools bring global or diverse communities together, virtually.
7. Easy to update, stay reactive to needs, and deploy quickly.

4.1 Benefits of E-learning System:-

Here are 5 key benefits in which e-learning has transformed the landscape of learning and development. When compared to the traditional mode of classroom learning, there is clear evidence that e-learning brings:

1) Its what learners want-really:

The recent report from Towards Maturity on the gap between corporate learning and what learners actually want highlights that, when given a choice, learners want mobile, relevant, personalized and self-paced content at a point of need. What they get is often a little different - with too much emphasis on face-to-face and long courses. The digital revolution and Smartphone boom has triggered huge changes in how we access, consume, discuss, and share content. Naturally, learning is following suit. Whilst many want learning at a point of need, many learn in evenings and at weekends and on the way to or from work.

2) See some examples:

Rolls Royce: A multi-device and personalized learning solution that has gasification techniques at its heart. Easy

Jet On boarding: A blended approach that helps get 1,500 new recruits a year up to speed, with a sustainable solution. You can read the report from Towards Maturity here.

3) Faster delivery

At a time when change is faster than ever, a key advantage of learning is that it has quicker delivery cycle times than traditional classroom-based instruction. In fact, research ^[1-2] indicates that learning reduces learning time by at least 25 to 60 percent when compared to traditional learning. E-learning cuts down on the training time required because:

- It does not take as long to start and wrap up a learning session.
- Learners set their own pace, rather than the pace of the group.
- No travel time is needed to get to and from training events.
- Learners can focus on elements of a programme they need to learn and can skip what they already know.

Alongside these factors, there is also a practical limitation on how quickly learning can be rolled out with classroom-based instruction, as the capacity to deliver is limited by the number of available classrooms and trainers. Our service on the

other hand, has enabled organizations to create and roll out training programmers within weeks or even days. To learn more, you can find our rapid e-learning case studies here.

4) Lower costs

Because of the speed and ease in which e-learning is delivered, the costs of learning and development for an organization are drastically reduced.

There are the immediate cost-effective gains of e-learning in terms of reducing training time as well as cost-effective savings in terms of trainers, course materials, travel and accommodation. However, it is equally important to highlight that e-learning, when done right, can also improve an organization's profitability. Kineo has a number of ROI case studies which demonstrate the immediate and long-term financial benefits of e-learning, including:

5) More effective e-learning

Our case studies show time and again those e-learning courses can have a positive and direct impact on an organization's profitability by making it easy to learn and digest information. Studies

on e-learning ^[3] and evidence found in Kineo case studies have made it increasingly clear that e-learning has the following positive benefits for learners:

- better attitude toward the e-learning format and training in general
- improved scores on tests, certifications or other evaluations
- increase in number of learners who achieve 'mastery' level and / or 'pass' exams
- greater ability to apply the new knowledge or processes on the job
- Better long-term retention of information.

6) Lower environmental impact

By providing an alternative to the paper-based learning and testing of traditional classrooms, e-learning is an effective way for organizations to significantly reduce their carbon footprint.

A study by the Open University found that on average, the production and provision of distance learning courses consumed nearly 90 percent less energy and produced 85 percent fewer CO2 emissions per student than conventional campus-based university courses.

The key areas in which e-learning lowers an organizations' environmental impact are as follows:

- Cuts down on the travel and accommodation costs associated with undertaking a course
- Reduces the need for a campus site and the accompanying costs of maintaining the facility and equipment
- Eliminates the need for paper, thus saving trees (Kineo; a city & guilds group business UK.2017 brochure)

5. E- Pedagogy vs. Conventional Pedagogy:-

Teaching and learning require pedagogic foundation, a set of rules and procedures that help to make the developmental process effective. Many great minds contributed to the development of pedagogy as a science, among them Johann Heinrich Pestalozzi, John Amos Comenius, John Dewey, Lev Vygotsky, Jean Piaget, Jerome Brunner, and many others. According to Brunner (1999), pedagogy is a science that makes educators aware of different teaching and learning standards and strategies which guide what, to whom, how and when to teach. So, when teaching,

instructors select the content and strategies that best fit a specific classroom situation based on this science and their classroom experiences. Online education does not yet have its own pedagogy. (Nataliya Serdyukova National University)

Online educators lack comprehensive, research-based, and consistent theory of online education without which there is no quality teaching and learning. Such a theory will provide a conceptual base of online education, along with setting the expectations for pedagogically sound and thus effective designing, planning and implementing both teaching and learning; help understand online students and their learning process; provide methodological directions and advice; prepare instructors for effective teaching, and help maintain their professionalism. As the term 'e-learning' has been established to denote online learning, it would be logical to call the emerging pedagogy of online education 'e-pedagogy'. The current authors argue that pedagogy being a generic term for broad pedagogic science integrates many parts, such as teaching, learning, personal development, instructional methods, etc.



Therefore the authors believe it would be incorrect to call e-pedagogy the pedagogy of e-learning, as was suggested in the article under such title (Mehanna, 2004) - the latter is only a part of the broad, all-embracing e-pedagogy. What content areas should online education pedagogy cover? Like traditional pedagogy, it has to describe current educational theories and methodologies; identify basic principles of online education based on research and understanding of the traditional education together with current trends and future developments; clarify educators' roles and functions; focus on the purpose of education, dispositions and preparedness for the learning; consider the processes of learner personal, cognitive and social development. E-pedagogy is a comprehensive science which integrates all issues related to online education, starting with the theoretical foundations, and embracing higher education institutions, pedagogic systems, personal and professional development, principles of teaching and learning, instructional approaches and methods, knowledge construction in online learning, student and instructor's characteristics, educational technologies, course design and process planning. (Nataliya Serdyukova National

University Peter Serdyukov National University)

5.1 E- Pedagogy Advantages:-

The adoption of E-learning in education, especially for higher educational institutions has several benefits, and given its several advantages and benefits, e-learning is considered among the best methods of education. Several studies and authors have provided benefits and advantages derived from the adoption of e-learning technologies into. Some studies give advantage of e-learning as its ability to focus on the needs of individual learners. For example Marc (2000) in his book review on e-learning strategies for delivering knowledge in digital age noted that one of the advantages of e-learning in education is its focus on the needs of individual learners as an important factor in the process of education rather than on the instructors', or educational institutions' needs. Some of the advantages that the adoption of e-learning in education, obtained from review of literature includes the following:

1. It is flexible when issues of time and place are taken into consideration. Every student has the luxury of choosing the place and time that suits him/her. According to Smedley the adoption of e-learning provides the institutions as well as their students or learners the much flexibility of time and place of delivery or receipt of according to learning information.

2. E-learning enhances the efficacy of knowledge and qualifications via ease of access to a huge amount of information.

3. It is able to provide opportunities for relations between learners by the use of discussion forums. Through this, e-learning helps eliminate barriers that have the potential of hindering participation including the fear of talking to other learners. E-learning motivates students to interact with other, as well as exchange and respect different point of views. Learning eases communication and also improves the relationships that sustain learning. Note that e-Learning makes available extra prospects for interactivity between students and teachers during content delivery.

4. E-learning is cost effective in the sense that there is no need for the students or learners to travel. It is also cost effective in the sense that it offers opportunities for learning for maximum number of learners with no need for many buildings.

5. E-learning always takes into consideration the individual learners differences. Some learners, for instance prefer to concentrate on certain parts of the course, while others are prepared to review the entire course.

6. E-learning helps compensate for scarcities of academic staff, including instructors or teachers as well as facilitators, lab technicians etc.

5.2 E- Pedagogy Disadvantages:-

In spite of the advantages that it has when adopted in education, also has some disadvantages. Studies support that e-learning possesses some disadvantages. For example despite the claims that e-Learning can improve the education quality, Dowling et al. (2003) argue that making learning materials available online results in improved learning results only for specific forms of collective assessment. Also Mayes

(2002) asked a question of whether e Learning is simply a support device for existing methods of learning. The most noticeable condemnation of e-Learning is the complete absence of vital personal interactions, not only between learners and instructors, but also among colleague learners regardless of all the disadvantages of e-learning, there are a lot of benefits which inspire its use also encourage the search for ways to reduce disadvantages. The disadvantages of e-learning that have been given by studies include the following:

1. E-learning as a method of education makes the learners undergo contemplation, remoteness, as well as lack of interaction or relation. It therefore requires a very strong inspiration as well as skills with to the management of time in order to reduce such effects.

2. With respect to clarifications, offer of explanations, as well as interpretations, the e-learning method might be less effective than the traditional method of learning. The learning process is much easier with the use of the face to face encounter with the instructors or teachers.

3. When it comes to improvement in communication skills of learners, e-learning as a method might have a negative effect. The learners. Though might have an excellent knowledge in academics, they may not possess the needed skills to deliver their acquired knowledge to others.

4. Since tests for assessments in e-learning are possibly done with the use of proxy, it will be difficult, if not impossible to control or regulate bad activities like cheating.

5. E-learning may also probably be misled to piracy and plagiarism, predisposed by inadequate selection skills, as well as the ease of copy and paste.

6. Also not all fields or discipline can employ the e-learning technique in education. For instance the purely scientific fields that include practical cannot be properly studies through e-learning. Researchers have argued that e-learning is more appropriate in social science and humanities than the fields such as medical science and pharmacy, where there is the need to develop practical skills.

7. E-learning may also lead to congestion or heavy use of some websites. This may bring about unanticipated costs both in time and money disadvantages (Collins et al. 1997; Klein and Ware, 2003; Hameed et al, 2008; Almosa, 2002; Akkoyuklu & Soylu, 2006; Lewis, 2000; Scott et al. 1999; Marc, 2002)

5.3 Conventional Pedagogy-

Conventional pedagogical practices focus on the means and ends of delivery, with the emphasis on content management and information transmission. The role of classroom management is to produce an environment that facilitates the process of knowledge building. Current approaches to ways in which people learn can be classified as: Constructivism; Behaviorism; Developmental Theory; Neuroscience; Brain-based Learning; Learning Styles; Multiple Intelligences; Right Brain/Left Brain Thinking; Communities of Practice; Control Theory and Problem-Based Learning. In practice, however, there is a degree of commonality between many of these categories. Despite this diversity, praxis within British schools has focused on content, rather than process. What theoretical bases can be found are often

simplified variants of Constructivism and Developmental Theory. (John P. Cuthell)

5.4 Conventional Pedagogy advantages:-

1. Active Learning

Traditional education is an active mode of learning. Students learn quickly in the classroom. The one on one student teacher interaction helps students to actively learn the lessons delivered by the teacher. This is the most prominent feature of traditional education.

2. Active Participation of Students and teachers

Students actively take part in the classroom activities. They help other students in study related matters. They ask questions from teachers if they have any problem in studies. Active participation is very essential for having clear understanding of the theories discussed in the classroom.

3. Communication

There is a good communication between students and teachers and between students. This is very essential for boosting up the confidence level of students. A good communication makes students good

communicators and teachers also feel competent after getting feedback from students.

4. Recreational Activities

The regular recreational activities refresh students and they get some relief from the stress of studies. They enjoy and have fun due to these recreational activities. These activities are useful besides studies.

5. Scheduled

The best part of traditional education is that it is scheduled and is properly carried out. The timetable and duration of lectures are all scheduled. This helps in making students disciplined and civilized.

5.5 Conventional Pedagogy Disadvantages:-

1. Spoon Feeding

Students are always dependent on their teachers in every study related matter. This makes them dependent on teachers. This trait suppresses the creative side of their personality and they never get to know their strengths.

2. Favoritism

Teachers show favoritism, which destroys the personalities of the left out students.

They feel incompetent and worth less. This attitude develops inferior feelings in other students. The teachers must treat all the students equally.

3. Extracurricular Activities distort students

When there are more extracurricular activities, then students feel difficulty in concentrating on their studies. They are absorbed with the things affecting their educational performance. It is difficult for students to keep balance between studies and extracurricular activities.

4. Negative Groups

There are chances that students get indulged in the negative groups. The negative group destroys student's academics and his personality is also affected by associating with these negative groups. These negative factors are nurturing without being noticed.

5. Costly

Traditional education is costly. The tuition fee is very high. Moreover, the course books and other school things are quite expensive. It costs so much. Parents have to face difficulty in paying tuition fee and other expenses of schools.

These were some of the benefits and disadvantages of traditional education system. It is good in training students but it

is not guaranteed that all students get the equal attention of their teachers. Traditional education is also very expensive.

Conclusion:-

When you compare both smart classes and traditional classes, you will discover that they both have their own sets of advantages. For students who have just been exposed to traditional classes may find smart class learning difficult. Whereas, when you compare both on the basis of ease of learning. In the flexibility aspect as well, smart class is better. The students can learn at the time of their convenience. When compared on the basis of cost, both smart class and traditional class are costly. Smart classes need to spend money on electronic devices, whereas traditional classes need infrastructure to organize the classes.

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