REVIEW OF E-LEARNING AND ICT SYSTEMS IN TEACHING PROCESS

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Abstract—*Application of information and communication technologies (ICT) and e-learning in education system could serve as potential improvement of lectures and learning process. It is essential to introduce the ICT in teaching process as soon as possible because of rapid development of information systems and technologies. The main goal of the article was to encourage teachers to think about the way of application of ICT in lectures since it will be necessity in the future. ICT application in teaching process could have enormous possibilities for simulation, presentation and visualization of learning materials. The inclusion of ICT in teaching process poses great challenges for teachers and this article try to overcome the challenges. We attempted to clarify all jobs of ICT for further changes. The most critical issue in the present investigation is simply the instructive projects (self-control, self-learning, self-equity, self-assessment and creative idea).*

The research shows that technologies make learning environment alive and more attractive. We show the preferences of ICT methods in teaching as well as show examples how interactive educational methods and ICT tools are used in teaching and learning.

Keywords: *Information and communication technologies (ICT) ,Self-control, Self-learning, Self-equity, Self-assessment.*

1. INTRODUCTION

Information & Communications Technology (ICT) is a collection of technologic tools and resources for further relations, creation, distribution, reservation and information management. The mentioned technologies are computers, internet, radio technologies (Radio/ T.V) and telephone.

Usage of e-learning and data and correspondence innovations (ICT) in training framework could introduce an open door for educators to overhaul and to enhance the addresses. ICT in instruction could enhance students' exhibitions. ICT improvement is quick and there is requirement for fuse of ICT in educating and learning process.

The utilization of ICT in instructing can enhance information in the field of translation, in the learning procedure, as well as for future expert movement. Huge changes in instructing and learning could be improved by always rising new ICT, which have adjusted normal ways to deal with educating and

learning. The primary effect of ICT in training can be seen in enhancing the abilities of educators, changing the instructive structure, making open doors for more prominent and progressively thorough getting the hang of, upgrading instructive quality and enhancing instructing aptitudes. ICT has given numerous chances to composed association through a visit, in which understudies needed to refine their open abilities in English so as to team up effectively in the task set. Long lasting learning fitness observation and capacities in utilizing ICTs of the instructors working in grade schools was resolved in article. These days, society is influenced by the ICT challenges that accompany the Internet arrange and the World Wide Web. Alongside the scattering of portable advancements and remote systems in educating and learning situations, examine has demonstrated that understudies tend to digital portion amid the courses. Among employees with various experience of educating, their way to deal with programming was simply the most anticipating element in making trust in them to utilize ICT in their instructing.

Fig. 1: ICT

In light of the fast improvement of the ICT it is fundamental to present ICT in instruction framework. ICT ought to turned into a standard for the educating and learning process. The primary objective of the article is to introduce conceivable parts of the ICT applications in addresses and to urge instructors to give an open door for redesigning of addresses by ICT applications.

2. IMPACT FACTORS OF IMPLEMENTATION THE TEACHING PROCESS THROUGH ICT

The educator directs the ICT showing process, affected by numerous components, which can be partitioned into interior and outside. Inward factors have been recognized as elements that the instructor has coordinate impact: ineptitude of educators and understudies, time for planning/refreshing e-learning or survey of existing e-learning materials, educational variables (access to educating, pedantic utilization of ICT, helpful learning). PC proficiency of educators is characterized as mindfulness, demeanour and capacity of the person to utilize advanced instruments and adornments for ID, securing, preparing, incorporation, assessment, examination and union of computerized assets. Furthermore, educators can assemble new learning, making media articulations, and correspondence with others, with regards to explicit life circumstances, so as to encourage valuable social exercises; and for contemplating these procedures.

3. E-LEARNING PROCESS

E-learning is the act of engaging in an educational course in an online setting. E-learning courses can exist in a variety of forms, using a range of technologies. Commonly used in organizations like schools and corporations, e-learning can help learners complete education and training objectives with greater ease and flexibility than they can with traditional classroom-based learning. E-learning courses can use a variety of techniques, including audio and video recordings, presentations, quizzes, surveys, games, discussion groups, and more.

E-learning courses can be published online through a learning management system (LMS). An LMS allows for course creators to streamline e-learning content into one easy-to-access location. An LMS that is SCORM-compliant (shareable content object reference model) allows for easy integration of content and tools, and extends the availability of courseware to include courses authored by third parties.
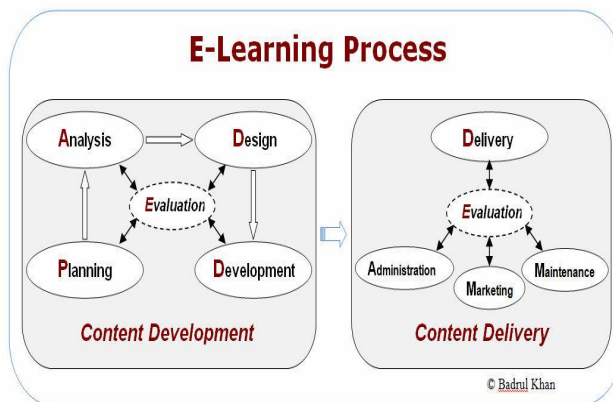

Fig. 2: E-learning Process

4. THE RELEVANT MODEL OF TEACHING & LEARNING THROUGH ICT

We ought not think about educating and learning as two separate exercises yet as the two sides of a coin and totally identified with one another. By contemplating and considering educating and learning at all schools all through the world may determine four stages of learning the ICT by the understudies and teachers.

The referenced four stages are as per the following:

4.1 Discovering and considering ICT instruments:

The initial step is discovering and considering ICT apparatuses and its open applications. Typically the information of ICT and its fundamental aptitudes will be considered in this progression. It is connected with emerging frame of mind of ICT advancement.

4.2 Learning the application technique for ICT apparatuses:

Open or private utilizations of ICT are incorporated into this progression and further relations with ICT improvement application process.

4.3 Understanding the way and time of applying ICT instruments:

This is a different advance for finding an extraordinary objective, for example, fulfilment of a particular task. It is come about to helpful circumstances of ICT, choosing the best and most appropriate apparatuses for performing extraordinary obligations, applying a mix of these devices for tackling genuine issues. This progression is identified with joined and changed demeanours of ICT advancement.

4.4 Discovering fortes in ICT application:

This progression incorporates profound comprehension of a science which might be made and bolstered by ICT. All students in this progression will consider ICT as a course of concentrate for discovering extraordinary encounters also.

Such an investigation is connected more to proficient learning rather than open one and additionally totally unique with past strides as a certification for use of ICT devices.

5. THE ADVANTAGES OF ICT IN TEACHING / LEARNING

5.1 Overhauling and providing of things

Accommodation of thoughts, procedures and exercises which are troublesome and additionally unthinkable without innovation. For example innovation could give a portion of the procedures of instructing effectively and inside most limited timeframes through reproduction which may need to more occasions and places.

5.2. Access to data

Students may discover simple access to some data through various innovations, for example, web which in the past it was unrealistic any more. It is critical to approach this data for two reasons. Right off the bat it makes it conceivable to think about some intriguing and persuading things for the students and also gives reasonable substance to those schools with powerless assets and relying on current old settings and books.

5.3. More assortment and changes

Profiting from innovation makes a principal change in learning process. A portion of the referenced changes are simple learning process, absence of time and place confinements, quickening of time and information investigation, association of students.

5.4. Participation

By participation in gathering and logical exercises of students, there will be a humanistic and collective endeavors for better importance and an applied learning. Students may gather wide scope of data through collaboration and supply it for the class. Teacher can gather and grouping the data and give the outcomes to the class.

5.5. Giving new instructive position

Profiting from ICT will give new circumstance to the understudies in which the educator may give more ideas on both commonsense and fanciful structures for the students. The most essential thing is nonexistent and mental insight of student's other than discourse and hearing knowledge.

6. PROPOSED MODEL

One of the perfect objectives of instruction framework is to build learning nature of understudies and their logical and social development. It is conceivable by the endeavours of people in control and included people in instructive framework from one side and furthermore teachers and students in on the other for giving a subjective change in instructive framework and social framework also. Obviously it

appears that educator and more slender have extraordinary and increasingly basic jobs in this procedure. As the keen powers of instructive framework and in cutting edge of training, educators may empower the students to have more contacts with substance of school courses. Conversely with past and customary frameworks, they will discover diverse jobs in instructive framework, for example, Instructor for encouraging the circumstance, student, data maker, instructive pioneer.

There are likewise extraordinary jobs for the students in instructive framework like:

1. Student as a looking power of data, pioneer and evaluator.

2. Student as a scholar, commentator, analyzer and selector of data and appropriate innovation

3. Student as a learning maker by the utilization of new assets and advances

4. Student as an envoy by the utilization of advances and appropriate media

5. Student as an instructive technologist

6. Student as a dependable subject in innovation age

Then again we have simple and intelligent access to reasonable data as other real determinations of ICT. Any entrance to the substance and learning assets through ICT is a system in classrooms. ICT could be compelling either through instructing techniques including: Group learning, Student-based strategy (Research-based learning, agreeable, and free, evaluator, coordinated and creative). Such a procedure will be driven into better learning. The yield of instructive framework will be come back to society and again the referenced yield will go into instructive framework.

7. CONCLUSION

Passage of ICT into various fields of exercises of individual and its every day increment improvement in current century is an important shot for experts and included individuals in training and further changes of learning/showing strategies and instructive objectives. By the utilization of any after-effects of various specialists and concentrates in the field all things considered, at long last any accommodation of a theoretical and pertinent model might be expected as a pioneer for instructive and course creators and make it conceivable to have a blend of ICT and training. The passage of ICT into instructive field is a profitable shot for playing out a few alterations and advancements came about into proficiency increment and more impacts of training framework. By perceiving any components of advancement the picking up/showing procedure and accommodation a reasonable model, the authorities and chiefs would be helped to apply required changes.

We attempted to clarify all instructive preparing jobs of ICT for further changes. The submitted model is come about because of persistent investigation of got discoveries and

profiting from new innovations of data and interchanges in instructing/learning process.

REFERENCES

[1] Tikhonova, E. V., & Tereshkova, N. S. (2014). Information and Communication Technologies in the Teaching of Interpreting. Procedia-Social and Behavioral Sciences, 154, 534-538.

[2] Ezugwu, A. E., Ofem, P. O., Rathod, P., Agushaka, J. O., & Haruna, S. (2016). An Empirical Evaluation of the Role of Information and Communication Technology in Advancement of Teaching and Learning. Procedia Computer Science, 92, 568-577.

[3] Khromov, S. S., Gulayeva, N. A., Zelenetskaya, I. S., Minakova, L. Y., & Sheketera, A. L. (2015). An algorithm for the integration of information and communication technologies in teaching languages for special purposes (the example of Russian as a foreign language). Procedia-Social and behavioral sciences, 200, 224-229.

[4] Klimova, B. F. (2015). Teaching and Learning Enhanced by Information and Communication Technologies. Procedia-Social and Behavioral Sciences, 186, 898-902.

[5] Claro, M., Salinas, A., Cabello-Hutt, T., San Martín, E., Preiss, D. D., Valenzuela, S., & Jara, I. (2018). Teaching in a Digital Environment (TIDE): Defining and measuring teachers' capacity to develop students' digital information and communication skills. Computers & Education.

[6] Ahmadi, S., Keshavarzi, A., & Foroutan, M. (2011). The application of information and communication technologies (ICT) and its relationship with improvement in teaching and learning. Procedia-Social and Behavioral Sciences, 28, 475-480.

[7] Tomás, R., Cano, M., Santamarta, J. C., & Hernández-Gutiérrez, L. E. (2015). New approaches for teaching soil and rock mechanics using information and communication technologies. Procedia-Social and Behavioral Sciences, 191, 1644-1649.

[8] Akahori, K. (2003). A Framework of ICT Use in Schools and Some Problems Based on Empirical Data. Graduate school of decision science and technology, Tokyo Institute of Technology.

[9] Brown, T. H. (2005). Towards a model for m-Learning in Africa. International Journal on ELearning, 4(3): 299-316.

[10] Brown, C., & Czerniewicz, L. (2004). Access to computers: Factors hindering and encouraging use of computers for teaching and e-learning in five regional higher education institutions in south Africa. World conference on e-learning. Vol. 1, pp. 1800- 1805.

[11] Ebrahim Zadeh, E.(2002). Approach is necessary to open and distance education system and the use of technology in teaching and learning process is organized. Journal of Peik Noor, 1:8. Ghoorchian,N(2003).ICT in education.(3rd ed). Tehran: farashenakht andisheh, (chapter 1).

[12] Hirtz, S., Harper, D. G., & Mackenzie, S. (Eds.). (2008). Education for a Digital World: Advice, Guidelines, and Effective Practice from Around the Globe. Vancouver: Commonwealth of Learning.

[13] Hennessy, S. Onguko, B. Harrison,D. Kiforo Ang"ondi, E. Namalefe, S. Naseem, A & Wamakote, L. Enos, Susan Azra. (2010). Developing the Use of Information and Communication Technology to Enhance Teaching and Learning in East African Schools. Centre for Commonwealth Education & Aga Khan University Institute for Educational Development – Eastern Africa.

[14] Khan, B. H. (2002, June). A framework for e-learning. Invited speech at the Virtual Learning: Academic and Corporate Conference, New York, NY.

[15] Law, N. Yuen. (2000). Conceptual Framework For Use Of ICT in Education: Roles and Interactions Of The Laerners,Teacher and The Technology: Faculty Of Education , University Of Hong Kong. Available at :(WWW. CITE.Com.).

[16] Müller-Falcke, D.. 2006. The Impact of ICT on Small Enterprises: The Case of Small-Scale Industry in India. In: Torero, M. and von Braun, J (eds.): Information and Communication Technologies for Development and Poverty Reduction - The Potential of Telecommunications. Baltimore, 174-178.

[17] Bidarian, S., Bidarian, S., Davoudi, A. M. A Model for application of ICT in the process of teaching and learning.

[18] International Conference on Education and Educational Psychology (ICEEPSY 2011). Procedia - Social and Behavioral Sciences 29 (2011) 1032 – 1041.

[19] Brown, T. H. (2005). Towards a model for m-Learning in Africa. International Journal on ELearning, 4(3): 299-316.

[20] Hirtz, S., Harper, D. G., Mackenzie, S. (2008). Education for a Digital World: Advice, Guidelines, and Effective Practice.