

**PROMOTION OF HIGHER ORDER THINKING AND PROBLEM SOLVING SKILLS
WITH THE HELP OF VIRTUAL EDUCATION:
SOME MAJOR ISSUES OF CONCERN DURING COVID19 PANDEMIC**

Monalisa Ghosh¹, Dr. Ritesh Mishra²

¹ Research Scholar, Department of Education, Dr .C.V.Raman University. Kargi Road, Kota, Bilaspur-495113

² Associate Professor, Department of Education, Dr .C.V.Raman University. Kargi Road, Kota, Bilaspur-495113

Email: ghoshmonalisa16@gmail.com

Abstract

It is expected that approaches of Virtual Education during COVID19 Pandemic would give a paradigm shift to higher education from its traditional form to a program relevant to the context of present education. The real intellectual challenge of teaching lies in the opportunity for individual teachers to observe the impact of their teaching on students learning. The crucial step is to incorporate ICT appropriately in the curricula of higher education programs. This would enable the prospective teachers as well as in service higher education teachers to implement ICT successfully in the teaching-learning situation for the promotion of virtual education. In the context of globalization we are studying and using different approaches, ways of teaching and different media. In the present situation virtual education has made emphasis on educational technology and communication system. The objective of the paper was to find out how teachers with the use of the latest technologies have learnt to transform their thinking and feelings which help them not only to transfer their expressions of content but they have developed the courage to act out their values with the help of virtual education. This paper has majorly tried to focus the different methods of virtual learning in promoting Higher Order Thinking and Problem Solving Skills.

Keywords: Virtual Education, ICT, technology, education system.

Introduction:

The rise of a global world and global society, driven by technology and communication developments are shaping learners of the future generation of the world into quality 'global citizens'. Educational systems around the world are under increasing pressure to use the new Information and Communication Technologies (ICT) and Virtual Education to teach students the knowledge and skills they need in the 21st century. Information and communication technologies have been powerful enabling tools for educational change and reform. When Information and Communication Technologies (ICT) and Virtual Education used appropriately, teachers are able

to motivate individual learner by providing motivation. We, teachers with the help of ICT and Virtual Education may organize our learning experiences as to encourage sequential, cumulative learning that promotes integration across disciplines and application. The following different methods may be used:

- Online tutorials, etc.
- Simulations,
- Knowledge reinforcement exercises,
- Computer assisted assessment.
- Open-ended learning environment

Generally, education is seen as the adjustment of individual to his environment, thus virtual education is the combination of distance education and e-learning which is characterized by the extensive use of Information and Communications Technology (ICT) in the delivery of education and instruction and the use of synchronous and asynchronous online communication in an interactive learning environment or virtual communities, in lieu of a physical classroom, to bridge the gap in temporal or spatial constraints. distance e-learning combines the strengths and advantages of distance education and e-learning. The focus is shifted to the education transaction in the form of virtual community of learners sustainable across time. Distance education model has its traditional focus on content delivery or correspondence, and emphasis is on independent learning. Virtual Education has its roots on computer conferencing and collaborative constructivist learning approach; it encourages collaboration in an interactive learning environment. Virtual Education goes beyond the use of ICT as tools to access information which primarily characterizes e-learning use in classroom teaching or in the residential setting.

Major Methods of Virtual Education in promoting Higher Order Thinking and Problem Solving Skills:

In the present contemporary situation, to be available to the vast otherness of the world, to be able to the respond to the call the learners at any time, requires that we must live without stereotypes and closure. We teachers need to live a life of openness with our learners and learning community and use of ICT and Virtual Education in such case can be of great help. A number of methods have been identified for achieving this objective.

- **Foundation Course:** ICT components should be integrated into all subject areas like math, science, social studies, English and so on so that students have a role model for ICT integrated teaching-learning environment.
- **Putting ICT Skills into context:** When pre-service or in-service teachers are taught ICT skills in con text, they are able to take an interest in the course, knowing that the skills have real applications.

- **Combining Pre-service and in-service training:** Pre-service preparation can be aligned with in-service teacher education where, a practicing teacher may work with a pre-service teacher education student on an innovative educational project. This will not only increase the research potential of the in-service teacher, but the pre-service teacher will also benefit from role modelling, and as a result, may have an easier transition into teaching.
- **Reciprocal Mentoring:** A teacher may facilitate learning by reversing the teaching roles. Using the process of peer tutoring or reciprocal mentoring, students often become teachers with the use of ICT.
- **Start with a Small Group:** In teaching-learning scenario we can use ICT in small group of teachers and learners. This will help to determine the specific needs and interests of teachers and learners with respect to the fulfilment of the objectives of learning.
- **Multimedia presentations:** Multimedia combines media objects such as texts, graphics video, animation, sound to represent and convey information which can be further utilized in designing, planning and acquiring new knowledge.
- **Tele-computing Projects:** The pre service teachers in one location may collaborate with other students or adults who are at other locations, with the help of Internet-enriched learning activities. Tele-computing tools include e-mail, discussion groups, real time chatting and audio and video conferencing.
- **Online Discussions:** Online teaching-learning discussions will increase meaning and understanding of the content and provide more knowledge globally.

Pedagogic Reform with respect to Virtual Education:

Keeping a good balance with the above mentioned objectives, pedagogic reform need to be done. In such a situation teacher primarily need to work as a facilitator of learning. Viewed in this manner, the obligations of the teacher include:

- Motivating individuals to learn through the use of ICT by providing both intrinsic and extrinsic incentives.
- Motivating individuals to learn and fostering the development of ways of learning applicable in all life experiences.
- Selecting and organising learning experience through the use of ICT.
- Structuring the Teaching-Learning Materials and experiences accordingly so as to encourage sequential, cumulative learning that promotes integration across disciplines and application.

- Adapting Teaching-Learning Materials, experiences and delivery system to the particular problems, context and students in order to enhance learning.
- Teaching through the use of ICT must be based upon the context in which it takes place and upon the contexts in which the subsequent learning is to be used.
- Individualizing experiences by reference to student learning ability.
- Exemplifying or modelling thought processes that students are to develop through the use of ICT.
- Evaluating learning progress and developing learner's independence in motivation through the use of ICT.
- Career planning and programme planning for students through the use of ICT.
- Effective teaching-learning on the basis of the context keeping a close coordination with the objective of learning through the use of ICT.
- Effective teaching-learning need to be evaluated on the basis of relevance and quality of what is learned through the use of ICT.
- Effectiveness with respect to the use of ICT may be increased by careful selection and possible adaptation of Teaching-Learning Materials, methods, organising principles and environment.
- To assess the effectiveness of the education system by comparing the outputs with the inputs in the teaching-learning environment.

Conclusion:

The networked environment of this new Internet-connected world has expanded the opportunities for teaching and learning in ways that we are only beginning to understand. What makes the implementation of e-teaching so challenging to the teachers is that asking them of the dot.com age to teach in a way in which they have never been taught when they were at school. They will work in an environment in which they have never been learners and may have had few first-hand experiences. However, without a history and a wide knowledge base to draw on, e-teachers will have the opportunity to be pioneers in their own right as they set sail. They will have the chance to re-examine what it means to be a teacher. It is expected that these approaches would give a paradigm shift to teacher education from its traditional form to a program relevant to the context of schooling for the globalized era. The real intellectual challenge of teaching lies in the opportunity for individual teachers to observe the impact of their teaching on students learning. The crucial step is to incorporate ICT appropriately in the curricula of teacher education programs. This would enable the prospective teachers as well as in service teachers to implement ICT successfully in the teaching-learning situation. In the context of globalization we are studying and using different approaches, ways of teaching and different media. Globalization has made emphasis on educational technology and communication system. Also globalization changes the way roles played by both teachers and students. It has developed new skills. Value and knowledge needed to be competitive in a global market. Thus we should work

or rethink about the globalization emphasis not only how much education is needed but also of ultimate purposes.

REFERENCES:

- [1] A. R. Korukonda and S. Finn, "An investigation of framing and scaling as confounding variables in information outcomes: the case of technophobia," *Information Sciences*, 2003.
- [2] T. Jay, "Computerphobia: What to do about it," *Educational Technology*, 1981.
- [3] C. A. Scull, "Computer anxiety at a graduate computer center: computer factors, support, and situational pressures," *Computers in Human Behavior*, vol. 15, no. 2, pp. 213-226, 1999.
- [4] E. C. Sheeson, "Computer anxiety and perception of task complexity in learning programming-related skills," *Computers in Human Behavior*, vol. 21, no. 5, pp. 713-728, 2005.
- [5] C. M. Nwanewezi, "Problems in business education research in ICT-Era as perceived by business educators," *Business Education Journal*, vol. 6, no. 2, 2010.
- [6] E. C. Osual, *Business and Computer Education Enugun*: Cheston Agency Limited, 2009.
- [7] D. A. Jude and E. Nosakhare, "Information and communication technology: Challenges to effective teaching of business education," in *Book of Reading*, vol. 2, no. 1, 2012.
- [8] B. N. Goodwin, B. A. Miklich, and J. U. Overall, "Perceptions and attitudes of faculty and students in two distance learning modes of delivery: Online computer and telecourse," Orlando: FL. ERIC Document Reproduction Service No. ED 371 708, 1993.
- [9] J. Hirschbuhl, "Faculty uses of computers: fears, facts and perceptions," *The EDUTECH Report*, 10, vol. 2, no. 1, pp. 4-5, 1994.
- [10] L. L. Wolcott, "Faculty development issues in distance education," *Open Praxis*, vol. 1, pp. 34-36, 1997.
- [11] L. Rutherford and S. Grana, "Retrofitting academe: Adapting faculty attitudes and practices to technology," *Technological Horizons in Education Journal*, vol. 23, no. 2, pp. 82-83, 1995.
- [12] A. Kaye, "Computer-mediated communication and distance education," in *Mindweave: Communication, Computers, and Distance Education*, R. Mason and A. Kaye Eds., Oxford: Pergamon Press, 1989, pp. 3-21.