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REVIEW OF FIVE STAGES OF HOOPER MODEL OF TEACHING WITH TECHNOLOGY

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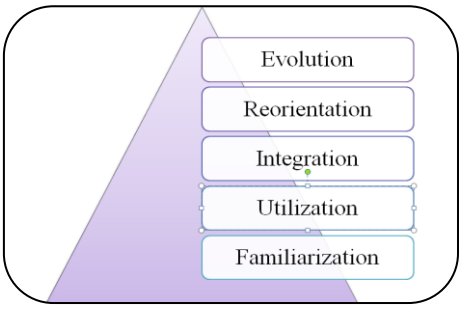
ABSTRACT :

Hooper and Rieber's Five-Stage Model of Teaching and Technology provides a structured framework for understanding how teachers integrate technology into their teaching practices. The model outlines five progressive stages: (1) Familiarization, (2) Utilization, (3) Integration, (4) Reorientation, and (5) Evolution. It emphasizes that successful technology integration is a gradual process where teachers move from basic awareness and usage to a more transformative and innovative application of technology in the classroom.



The model highlights that simply using technology is not enough; true integration happens when technology becomes an essential and natural part of teaching and learning, leading to improved educational outcomes. By encouraging teachers to reflect on their teaching practices and adapt to new technological tools, the model promotes a continuous cycle of learning and improvement. Ultimately, the Hooper and Rieber model underscores the importance of professional development, support, and a willingness to evolve teaching methods to meet the demands of a technology-driven educational environment.

Keywords : *Technology provides , teaching and learning , teaching methods.*

INTRODUCTION:

India is a large country with rich heritage of social cultural diversity. It is challenging to the government machinery to provide the quality education to huge population distributed over large territory. Even after 70 years of independence there are many schools and colleges which are far away from required basic infrastructure. The revolution of 21st century communication technology has penetrated almost every corner of the rural India. Explosion in information technology has brought the people closer to each other than ever before. This revolution of the century can only has several solutions in delivering quality education to the last and distant aspirant. In the new era of information technology, still there are many schools, colleges and universities rely on traditional teaching and learning methods.

Education technology is an integrated effort of student, teacher, infrastructure, institutional management and government. It is a participatory teaching and learning process. The profession of teaching is as an art, which has become a challenging job with changing modern technology. The changing behavioral psychology of the learners, huge adaptability and addition of technology, enabled

to change the mode of teaching. It is challenging for teachers and educational system to sustain quality of education, therefore teaching methodologies are to be changed to attract and involve the students in teaching and learning process. Therefore it is the time to find out and adapt newer technologies for teaching to overcome the problems of traditional teaching.

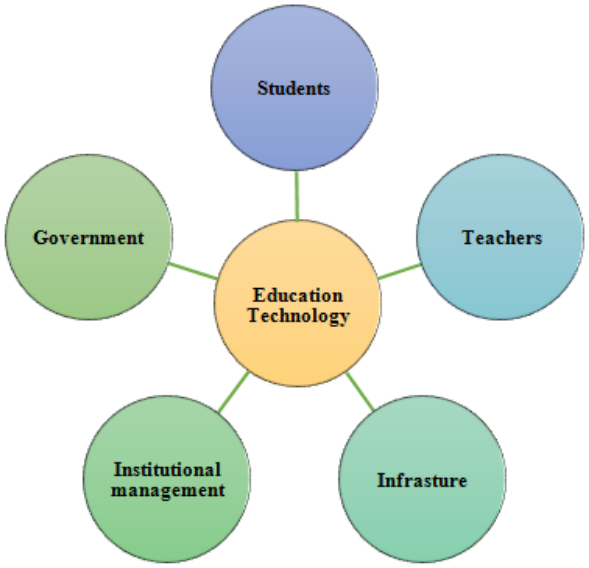


Fig. Educational Technology is an integrative effort

According to Bacchan Biswas (2019), now a days, educational technology is an essential component of the teaching-learning process. A new device or piece of software that facilitates teaching is developed every day. Technology has greatly impacted every area of education and opened up hitherto unexplored facets of Higher education was a part of education. The conventional function of the teacher in the classroom is being altered by technology in the realm of education. The current educational system has seen numerous modifications as a result of new instructional technology. It is becoming more and more important in the sphere of education. As technology develops, it is applied to enhance the educational process for students of all ages. The educational environment is evolving with the aid of technologies. These technologies are electrical and technological tool and related interactive human resources that allow the user to use them for a variety of educational purposes. Computers, video, television, sensors, interface boxes, the internet, telephony, satellite connections, and all the software and resources that enable teachers to use these technologies to instruct their students are among them. The study's goal is to demonstrate the role, function, and connection between educational technology and the process of teaching and learning in higher education.

The teaching and learning process itself has been impacted by interactive technologies.

The role and responsibility of teacher further increased, beyond lesson planning and implementing instruction, he is also expected to be managers, psychologists, counsellor, custodians, and community ambassadors, mentor and entertainers (Hooper, S., et.al, 1995). Most of the teachers enter this noble profession for the satisfaction of joyful learning with their students but unfortunately the other demands of the classrooms are very distracting and consuming. The purpose of the project is to envisage technology to re-establish the role and value of teacher in classrooms, for that class rooms must be changed to learner centric and students teachers must be collaborated with technology that encourage teaching and learning process. (Vanderbilt. 1992)

The profession of teaching becomes more challenging because of its multiplicity agendas. A good teaching involves much more than the simple transfer of material or specific skills. In teaching, the

major challenge is to convey excitement and to provide students with the psychological incentives they need to work hard. Technology can certainly be used to improve the quality of instruction, but the cost of technology is also important to be noted. It can also be used to increase its cost-effectiveness by expanding the audience. As a teacher, we need to understand what forces are driving the decision to use technology and when the goals of quality and cost reduction are in conflict.

Educational technology involves application of ideas from various sources to create the best learning environments possible for students. It does not include merely computers, CD's DVD's internet printer etc., but it is integration of curriculum with computers and IT so that the cognitive behaviour of learners is enhanced that ultimately help in building knowledge and enhance skills.

OBJECTIVES

1.To take review of literature regarding educational technology to understand past and present scenario of educational technology
2.To discuss model of technology adaptation in classroom.
3. To understand the traditional role of technology in education.
4. To understand contemporary role of technology in education
5. To understand the principle of effective learning through educational technology.
6. To make observation of few practices of educational technology.

LITERATURE REVIEW

Education is the organised institutional process to depart the knowledge to the aspirants. India has rich tradition of departing knowledge since Vedic era and with opening of world's oldest Taxila and Nalanda universities. Foreigners travelled India to gain the worldly knowledge. These old age institutes were well equipped with contemporary technology to depart the knowledge.

The proliferation of technology has led to growing consensus among educators and the general public that it should play a more integral role in education (Culp et al., 2003; CEO Forum on Education and Technology, 2001). During the same period few schools, colleges and universities were able to use educational technology and the number of such institutes were gradually increased. It was because of as educators or teachers made variety of efforts to integrate technology in their teaching methods or into the curriculum. Though computers came to Indian classrooms in the year 1980s, the level of adoption of modern technology in the teaching and learning process has been limited and uneven today. Possibly there has been no comprehensive study or survey on the use of Information and Communication Technology (ICT) in Indian schools.

In a study and survey conducted by Vivek Bharadwaj Special Secretary Department of Information and Technology, Government of West Bengal, where he found that the use of ICT in Education is very limited in the country whether measured by the number of schools having an ICT Department or Unit which was 20.4%, the availability of a budget in schools for its implementation was 6.5%, the number of teachers trained at ICT, the per capital availability of hardware and so on and so forth. The access to ICT facilities either by students or by teachers was of great concern. Out of 200 schools surveyed by him at Surendranagar, there were only two Multi-media Projectors, three PDAs and four Scanners. Even in Ahmedabad there were only 589 Desktop Computers reported in 100 schools. This means less than six computers per school and one computer for 72 students on an average. From his sample survey he reported that there is great need for increasing the availability of various ICT tool (Vivek Bharadwaj, 2017).

Educational technology is not restricted to meagre use of computers. It can involve other equipment and applications, such as videoconferencing, digital television (allowing students to interact with programs at their own pace), electronic whiteboards, and digital cameras (Jackson, 2008; Education Week, 2007; 2002; Marshall, 2002). When it comes to the question of technology, its adaptability plays necessary role. It is common to find a rumour among teachers or educators to which technology has to be adapted, which one is use friendly and so on. Educators have common struggle on the decisions regarding what types of technology to be used and how it could be used (Culp et al.,

2003). Researchers commonly argue that there is no one right technology or one right way to use it; rather, it should match schools teaching and learning goals and it should be appropriate for the students who use it (Sivin-Kachala & Bialo, 2000).

Schools, college or any other educational institute implement technology initiatives for different reasons. Their program goals include increasing students' economic competitiveness, reducing inequities in access to computers, raising student achievement, increasing student engagement, creating a more active learning environment, and making it easier to differentiate instruction according to students' needs (Bonifaz & Zucker, 2004). Each technology is likely to play a different role in students' learning process. For example, word processing and e-mail can improve communication skills; database and spreadsheet programs can enhance organizational skills; and modelling software often increases understanding of math and science concepts (Honey et al., 2005).

METHODOLOGY

The purpose of this project is to work out over a common and most acceptable model of education technology as discussed in objectives, for that there will be discussion and literature review on a model of technology adaptation in classroom, on traditional role of technology in education, contemporary role of technology in education, discussion on some principles of education technology and also discussion real time examples in theory and practices.

A model of technology adoption in the classroom

There are several innovations and so many technological development, but several times the question arises for what and why the technology is not adapted, what are the real problems of adaptations. According to Saettler it is easy to argue that educators are correct to resist mere innovation, but they should welcome educational technology, but unfortunately the history of educational technology does not support his own hypothesis (Saettler, 1990). Over the last 50 years both education and technology have witnessed several progressive changes but the changes in education system in compared to technological innovation witnessed meagre changes in the same period. Therefore the question may arise whether the educational system reached the point of development, where no further improvement can be expected from current educational technology? Have all educational technologies really just been fads of innovation that educators have correctly denounced as irrelevant and unnecessary? It seems appropriate to consider these questions as a way to understand importance of both traditional and contemporary roles of educational technology.

Adaptation of any innovative technology is necessary to introduce it in educational instruction. This project discuss on a simple model, as a tool to understand the patterns of adoption by teachers, after innovation is introduced in educational technology. There were several studies made to understand the adaptability of new educational technology before it is discarded (Dalton, 1989; Dwyer, Ringstaff, & Sandholtz, 1991). The resistive educator or any discrepancies in models towards adaption of educational technology is likely to be misused or discarded (Rieber & Welliver, 1989; Marcinkiewicz, 1991).

The model has five stages which was developed by Simon Hooper: Familiarization, Utilization, Integration, Reorientation, and Evolution (Hooper. 1995). The traditional role of technology in education is limited to only first three steps while the full potential of education technology can be approached by covering all five stages by the educators with contemporary views.

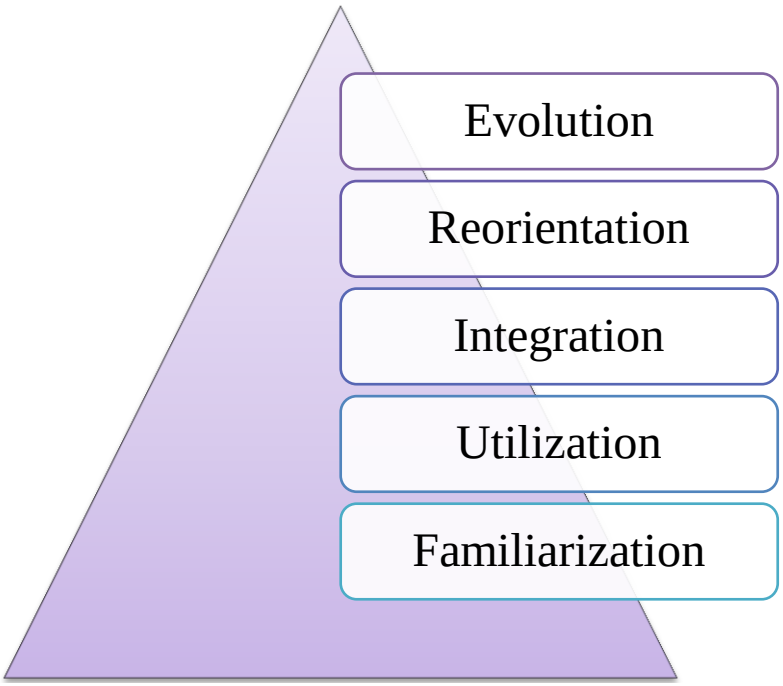


Fig. The five stage model of technology adaptation by Hooper (1995)

Familiarization: It means getting acquainted with the technology by the initial exposure, handling or primary experience with several trial and errors. The very purpose of this stage is to get 'know how' to the technology. It enables the teacher to adapt such a technology, by building confidence in him. This stage must be a demonstration of technology to prove how it is user friendly. The teacher may feel leader or cumulative agent to spread the technology. Such stage can be covered by organising seminars, workshops or conferences where the teachers are allowed to learn and acquaint the technology either individually or with group.

Utilization: It is the phase of small effort made by the teacher to make use of technology at practical level in class room. In this stage, the teacher must be enthusiastic enough to try at his class room with sufficient comfort. The institutional support is necessary that provide the required infrastructure at this moment. Once the teacher feels comfortable and had an optimum satisfaction with his lecture by using technology, the chances of going to next stage are more.

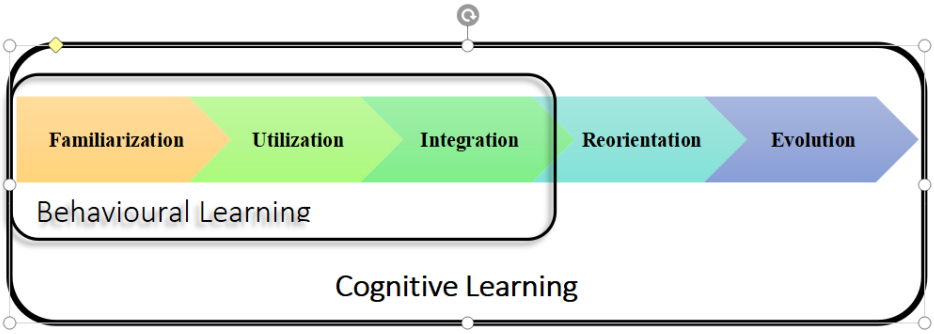
Integration: This is stage of submergence of technology and teaching. Teacher get adapted to the technology so much so that, without it he can't perform well in the class. At this stage teacher completely adapted to the technology and he thinks of horizontal expansion. He is confident enough to manage little tricky components of the technology.

Reorientation: It is the stage of reconsideration and reconceptualisation of the exact purpose of use of technology. Now the focus shifts from adaptation of teacher to a technology to learner centric. In this stage suitable environment is created around the students so that information given through technology is converted in to knowledge. In this stage he can think of several alternatives in technologies to impart the knowledge. The focus of teacher shifts from handling of technology towards student learning centric.

Evolution: It is the ultimate stage in the model where the adaption of education technology has reached its peak from where the new, innovative evolutionary ideas start to emerge. This makes the technology more simple and user friendly. The learning environment should be constantly be changing to meet the challenges and potentials provided by the new understanding.

CONCLUSION

Hooper and Rieber's Five-Stage Model of Teaching and Technology provides a structured framework for understanding how teachers integrate technology into their teaching practices. The model outlines five progressive stages: (1) Familiarization, (2) Utilization, (3) Integration, (4) Reorientation, and (5) Evolution. It emphasizes that successful technology integration is a gradual process where teachers move from basic awareness and usage to a more transformative and innovative application of technology in the classroom.



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