

ICT Enabled Classroom for Creating Independent Learner: Issues and Challenges

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Abstract: *The draft of NEP 2019 has clearly mentioned in 12.1. Innovative and responsive curriculum and Pedagogy, that the institution must ensure optimal teaching learning environment for upgrading the status of the education. The integration of information and communication teaching and learning provides better chances for teachers and students to work better in current scenario of education. But multiple barriers exist in the way of integrating ICT in the classroom. This paper is focused on identifying such barriers popular ICT enabled tools and suggestions for using such ICT tools for effective teaching-learning process.*

Keywords: Information and Communication Technology(ICT)enabled classroom, Barriers, Learner

I. INTRODUCTION

Late Dr. APJ Abdul Kalam was a huge advocate of education as the primary driving force. He believed that our education system requires certain responses, both in terms of spirit and practicality of the knowledge imparted. He also believed that the education system is still in the minds of students, capacity of enquiry creativity, technology, entrepreneurial & moral leadership. If we develop in all our students these five capacities we will produce “Independent Learner”.

Independent learner can be produced in the healthy teaching-learning environment by skilled teachers and an infrastructure equipped with modern technology based learning system. Keeping such as aim in mind digitization of education has been done. ICT enabled classroom includes computers, projectors, speakers, touch pad-pen, learning software and mobile applications. ICT used in the classroom is important for giving students opportunities for effective learning. In current scenario, it has been observed that application and adoption of ICT in nation at all levels, would definitely contribute and enhance its productivity, effectiveness and procedural growth.

The integration of information and communication teaching and learning provides better chances for teachers and students to work better in current scenario of education. But multiple barriers exist in the way of integrating ICT in the classroom.

ICT in the context of the paper refers to the use of Information and Communication Technology tools used in the teaching learning process such as LCD projector, Smart class etc.

Independent Learner refers to a type of learner who has the ability to explore the concept and knowledge on the basis of motivation provided through effective teaching method, inquiry based learning and teaching strategies including use of ICT in the Classroom.

Barriers refer to the problems faced by the teacher, the learner and other stakeholders, in the ICT enabled classroom. Such barriers include – lack of proper training, lack of interest and awareness, rigid curriculum, exam oriented approach etc.

II. LITERATURE REVIEW

Even there are a number of difficulties which act as barriers and prevent teachers to integrate ICT into the classroom. As Schoepp defines, a barrier is considered as any condition that makes it difficult to make progress or to achieve an aim [2]. A number of different ICT tools and applications may be integrated in teaching and learning. The process of using ICT in everyday education is very complicated. The opportunities provided by ICT to support teaching and learning are not problem-free. The virtually limitless opportunities of access to information in an educational context



can pose a real danger of information overload if the teachers do not have the skills in filtering information for relevance, or are unable to establish a coherent organizing principle. Both students and teachers may lack the necessity skills to access, process and use information [3]. Some other factors which were more internal to the teachers such as resistance to change and lack of awareness of the benefits of the ICTs for learning were reported in Jones' study. In the New Zealand, lack of time for professional development to learn about the new technologies and lack of time to explore technologies such as the internet and social networking services were repeatedly reported by teachers as the significant barriers for using ICT in the classroom [4].The integration of ICT in teaching and learning is not a method; rather it is a Educational Resurgence Journal Volume 2, Issue 3, Jan. 2020 ISSN 2581-9100 60 medium in which a variety of methods, approaches and pedagogical philosophies may be implemented [5].This statement shows that the effectiveness of ICT depends on how and why it is applied and integrated. In 1980, Taylor stated that ICT usage is classified to tutor, tool and tutee [6].

2.1 The Study Is Focused On

The study is focused on barriers faced at different level in teaching learning process. Barriers are at different level; Teacher Level , Institutional Level and System /Technical Level. Issues and challenges faced by ICT enabled classroom.

Table with 3 columns: At Teachers Level, At Institutional Level, At System Level. Each column lists specific barriers such as 'Attitude Lack of proper training', 'Insufficient infrastructural facilities', and 'Lack of flexibility in curriculum'.

2.2 At Teachers Level

A. Attitude

A proverb 'It is not the aptitude but the attitude which will take you to altitude' clearly indicates that if the attitude is not in the favour of certain event then it assures its failure. ICT and its usage have many benefits instead the attitude of teachers towards using ICT in Teaching Learning process is not satisfactory. ICT hardware is being used by teachers, but they are not using willingly and effectively due to lack of learning desire.

B. Lack of Proper Training

Even if the teachers are ready to learn and acquire the ICT skills for teaching, there exists a big gap between their need and the source from where it is to be fulfilled. This includes lack of proper training module, efficient ICT trainer and provision of such Educational Resurgence Journal Volume 2, Issue 3, Jan. 2020 ISSN 2581-9100 61 training schedule in the institution's schedule. Very few among them are properly trained in that and as a result of which the gap further widens.

C. Lack of Awareness

ICT enabled teaching-learning process is used by most of institutions. In teachers group, every age group teachers are there and awareness level in different age group category varies. They are not getting updated easily with new updated applications and tools used in ICT Module due to lack of interest.

D. Lack of Resources

As we talk about ICT enabled teaching-learning process, it includes hardware and software resources. Hardware resource may are Computer, Speaker, Projector, Digital Touch Pen Pad, Digital Cameras and Software resources may

applications like PPTs, PDFs, EDMODO, GOOGLE CLASSROOM etc. Due to lack of these resources or inefficient technical support may cause issue in implementation of ICT enable teaching learning process. The problem exists because of many reasons such as no budget or limited budget for such set up.

E. Lack of Time for Learning and Practices

As discussed earlier, well-structured training module is needed for training the teachers to use ICT tools. Also, it needs proper understanding, training and practice by teachers and students. But because of restricted time table management there is hardly any space for such training module and thus it becomes more difficult to train teachers and students in using ICT tools.

2.3 At Institutional Level

A. Insufficient Infrastructural Facilities

Hardware and Software which is required for proper functioning of ICT enabled classroom may be expensive. For all kind of institution or organization, it is not reliable to provide infrastructure, lab, classroom, hardware and software for establishment of ICT enabled classroom setup.

B. OLD or POOR Hardware/ICT Tools

Old or poor quality hardware may cause problem in using in ICT enabled classroom. It may cause data loss due to bad quality of hardware. We need certified and authorized hardware. Application used in ICT may cause insecurity or data loss if that tool /application is not authorized or secure from all kind of attack. Sharing and getting of data should be through authentic software, otherwise it may chance to tamper quality of content at institutional level

III. SUGGESTIONS FOR EFFECTIVE USE OF ICT

3.1 Various ICT tools available for Classroom

ICT enabled classroom plays vital role in modern teaching-learning process. In ICT enabled classroom, we can use various tools like Microsoft PPT ,The Internet, Interactive Whiteboard , Projector , Computer, Touch Pen Pad, eBooks, Visualizer etc. With the help of given tools we can conduct our ICT based class in effective and appropriate manner.

3.2 ICT Tool

1. MS Power Office PowerPoint
2. Interactive Whiteboard
3. eBook
4. The Internet
5. Visualizer
6. Touch Pen & Pad
7. LCD/LED Projector
8. Compute

3.3 Teaching Learning Apps and its Features

In ICT enabled classroom, we can use various Teaching -Learning application like Google Classroom, EDMODO, SSPS etc. These applications are available along with basic features of learning and latest learning technique.

3.4 Features Provided in Teaching –Learning Apps

- With Email Id or Sign up process we can get registered in these applications.
- It requires very less space to install in our computing device.☺
- It avails with sharing of data in any file format like Word Documents, PDFs, PPTs, Spreadsheets, Videos, YouTube Link or any hyperlink etc.
- Perfect quiz or assignment facility is there with setting of certain duration of submission of that.
- On line discussions can be done as we do social networking sites for chatting.

- Multiple teachers and students can create or join same class simultaneously.
- On the basis of quiz or assignment we can give grades to evaluate our students efficiently.

3.5 Attitude of Different Stakeholders towards use of ICT

Use of ICT enabled classroom in modern education system is beneficial for our society. In this teaching –learning process, attitude matters a lot. Attitude at different stakeholders like teachers, students, parents and management/system may support in positive functioning of ICT enabled classroom. Positive attitude towards using of ICT will improve our quality of education in smart way.

IV. CONCLUSION

Education in the current era is more challenging because of differences in different learning styles and learning desires among the learner. But proper use of ICT tools can be helpful in catering the needs of the different types of learners. Proper training and accessibility to the ICT resources will not only help the teachers and the students but at the same time will be helpful in creating constructivist classroom and thus Autonomous Learner

REFERENCES

- [1]. Salehi, H.& Salehi, Z. (2012). “Challenges for using ICT in Education: Teachers’ Insights; International Journal of e-Education, e-Business, e-Management and e-Learning ,Vol.2,No.1
- [2]. K. Schoepp. (2005). (“Barriers to technology integration in a technology-rich environment ,”Learning and Teaching in Higher education :Gulf Perspectives ,Vol.2 No.1, pp-24,
- [3]. Yunus, M. M.; M Lubis and C. Lin,(2009). (“Language Learning via ICT : Uses , Challenges and Issues,” WSEAS Transactions on Information Science and Applications, Vol.6,No.9, pp.1453-1467.
- [4]. Billowes, N.(2001).“ICT activities that make a difference ” Wellington: Ministry of Education,