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BARRIERS AND CHALLENGES IN IMPLEMENTING ICT IN TEACHING AND LEARNING ENVIRONMENTS

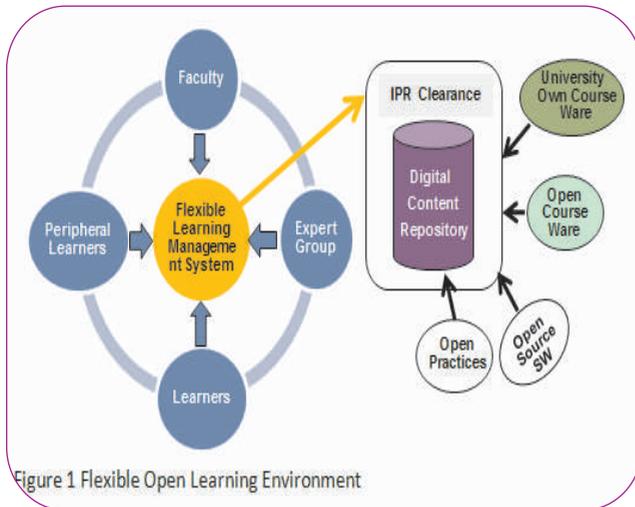


Figure 1 Flexible Open Learning Environment

ABSTRACT: -

ICT integration in education is the use of technology tools in teaching and learning general content subjects. The integration of technology in education originated from a constructivist philosophy of education where learners actively construct their own knowledge. Integrating technology in education has many benefits for both teachers and their students. These include motivating students to learn, allowing for greater differentiation among students, promoting both independent work and team work and increasing the teachers' efficiency in lesson preparation and content delivery. In the age innovation of and productivity, knowledge and technology has come to occupy a centre stage in national and international policy debates. Nations are focussing on ways to improve and flow of new technologies.

KEYWORDS: Implementing ICT in Teaching & Learning Environments, Integration of technology in education.

INTRODUCTION :

In this Scenario, it has been duly recognized that implementation and adoption of ICT in nation at all levels, would certainly contribute and enhance its productivity, efficiency and growth. However, research

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has also found that there are many challenges associated with integrating technology in education. These include establishing infrastructure developing the required skills to make use of information and communication technology in education and ensuring maximum use of the technology in order to reap the designed results.

Need for ICT in Education

ICTs have developed as powerful tools for diffusion of knowledge and information ICT is the convergence of computer communication and content technologies.

There is no conclusive research to prove that student achievement is superior when using ICTs in the education space, either in the developed or in developing countries. ICTs have the potential to innovate, accelerate, enrich and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers as well as strengthening learning and helping schools change. Some benefits of ICT in education are.

- It has the potential to improve education system of the nation.
- It can transform the nature and quality of education as a whole.
- It helps to enhance the quality of education by facilitating new forms of interaction between students, teachers, education employees and the community.
- It acts as and provides students and teachers with new tools that enable improved learning and teaching

and adds to skill formation.

- It improves the learning process through the provision of more interactive educational materials that increase learner motivation and facilitate the easy acquisition of basic skills.
- It makes education more accessible for all, bringing education to the doorstep of children living in remote rural locations by means of enabling distance learning.
- It offers more challenging and engaging learning environment for students of all ages.
- It leads to integration of technologies with traditional educational activities although it can never replace the conventional teacher-student relationship that is so crucial to the development process.
- It provides greater flexibility and individualized learning facilities to learners.
- It enhances the overall teaching learning process.
- It facilitates in enhancing the efficiency and effectiveness of educational administration and policy by improving the quality of administrative activities and process.

ICT is important in schools and educational institutions as it assists in carrying out their activities and functions such as record keeping, research work, instructional uses, presentations, financial analysis, examination results management, communication, supervision, teaching learning activities and general school management functions. Application of ICT in teaching makes teaching more innovative, interesting, interactive, easy, and effective while imparting knowledge with the aid of ICT, educators find that students are more receptive and responsive. Also, ICT can help to impart more information and knowledge to students in a short time, enabling maximum utilization of resources and time.

Against this background, there are some issues and challenges associated with the implementation of ICT in schools. The process of incorporating ICT into teaching and learning is not an easy process. On the other hand, it is a complex process. It is quite possible that a number of difficulties emerge on the way. There are mainly two types of barriers that are teacher level barriers versus school level barriers. Lot of research has taken place regarding the barriers faced by teachers while integrating ICT into teaching and learning. Becta (2004) has grouped such barriers into two categories. First category relates to barriers faced at individual level (i.e. at the level of the teachers). Such barriers include lack of time, lack of confidence and resistance to change. Second category relates to barriers faced by the institution i.e. schools. Lack of access to resources, lack of effective training in solving technical problems etc are the major barriers which belong to this category.

Teacher Level Barriers

Lack of Teacher Confidence: Several researchers indicate that one barrier that prevents teachers from using ICT in their teaching is lack of confidence. According to Beggs (2000) lack of confidence from 'fear of failure' has been an important barrier. Beggs has found that the very fact that ICT has to be used in teaching makes teachers feel anxious while teaching in the classroom and they feel that they lack confidence in using ICT in teaching.

Lack of Teacher Competence: Another barrier, which is directly related to teacher confidence, is teacher's competence in integrating ICT into pedagogical practice (Becta 2004). Many teachers were found lacking the knowledge and the necessary skills in using computers (Newhouse, 2002). It was also found that they were not at all enthusiastic about the changes brought about by the use of ICT in teaching. It was also found that teachers were also not enthusiastic about integrating supplementary learning with using computers in teaching practices adopted in classrooms. In the developing countries, research reported that teachers' lack of technological competence is a main barrier to their acceptance and adoption of ICT (Pelgrum, 2001 & Al-Oteawi, 2002).

a) Negative Attitudes and Resistance to Change

It has been found that the most important barrier to use of new technologies in education by teachers has been resistance to change (Beta 2004).

b) Lack of Trained Teachers

A major obstacle in the use of ICT in school education is the lack of knowledge and skills. Unfavourable organizational culture and poor attitudes and beliefs. Often in developing nations, the educational organization

and school management fail to perceive the importance and seriousness of the role of ICT in education enhancement. Also, the teacher's attitudes and beliefs are. They are unaware and rigid and not willing to adapt to change.

c) Shortage of Time

In schools, teachers are usually burdened with multiple tasks other than teaching. Moreover, they have to teach all types of subjects along with ICT. They do not have time to design, develop and incorporate technology into teaching and learning. The teacher needs time to collaborate with other teachers as well as learn how to use hardware and software and at the same time keep oneself updated with the latest technology.

d) Issues of Maintenance and Upgrading of Equipment

Maintenance and approaching of ICT equipments in school is subject to their limited financial resources. Largely, the government initiatives are restricted by budgetary constructions. The ICT projects in schools are not self-sustainable.

e) Insufficient Funds

Appropriate and latest hardware and software facility availability determines this effective and efficient usage of technology. In developing countries, technology implementation into education system is a difficult task as it requires a magnum of funds, infrastructure and support facilities. Insufficiency of finances leads to redundant and obsolete infrastructure and equipments in rural schools leaving a huge, lacuna in the process of enabling ICT skills and imparting ICT education.

f) Challenge of Language and Content

A large proportion of the educational software produced in the world market is in English. Majority of online content is available in English. In developing countries, English language proficiency is not high, especially outside the urban areas which becomes a serious barrier to maximizing the educational benefits of ICT.

g) Shortage and Unavailability of Equipment

There is lack of computers and computer related resources such as printers, projectors, scanners, etc in government schools as well as some aided schools. The ratio of computer per student is insufficient. There is a mismatch between the complementing resources and inappropriate combination of ICT resources result into reduced diffusion of technology as well as poor ICT understanding in their educational institutions. The schools lack up to date hardware and software availability.

h) Lack of Technical Support

Many schools face issues related to technical know-how, absence of ICT service centres, shortage of trained technical personnel. Without on-site technical support, much time and money may be lost due to technical breakdowns.

Other external factors inhibiting the usage of ICT in schools are social and cultural factors inherent to those regions, lack of initiative by community leaders corruption and burglary.

CONCLUSION

The integration of ICT in education has a lot of potential to enhance teaching and learning in schools if is carefully planned for and adequate support is given to teachers. The barriers which have been faced in integration of ICT are key aspects which educational institution should address before implementation of the reform, to increase its effectiveness. In order to integrate ICT into the curriculum, on the one hand, teacher training institutions should provide appropriate and sufficient support for the teachers. On the other hand, teachers should be aware of what is happening in the classroom and what changes are occurring. Therefore, possible effective uses of ICT can be applied in teaching and learning, which will eventually lead to the

improvement of educational programs.

REFERENCES

- Pelgrum, W.J. (2001). Obstacles to the integration of ICT in education: results from a worldwide educational assessment. *Computers & Education*, 37, 163-178.
- Buikaily, R. & Mubika, A.K. (2011). Teacher competence in ICT. Implications for computer education in Zimbabwean secondary schools. *International Journal of Social Sciences and Education*, 1(4), 441-425.
- Neeru Snehi. (2009). ICT in Indian Universities and Colleges: Opportunities and challenges. *Management of Change*, 13(2).
- Taylor, R.P. (1980). *The computers in School: Tutor, tool, tutee*, New York Teacher College Press.

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