

INTEGRATION OF ICT WITH TEACHER EDUCATION

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Abstract

Information and Communication Technology (ICT) has a clear impact on the development of educational curricula. Those teachers mainly focus on the development of technical ICT skills, on the integrated use of ICT within the learning and teaching process. The Teachers and learners are enthusiastically adopting this powerful tool, ideally suited to supporting interactive whole class teaching, where learners test their developing understanding against corporate meaning that introducing new technologies reconfigures existing practice but must be grounded in understanding of its structure. ICT is affects all aspects of life, the socio-cultural, the political and the economic. However, ICT it is a new and powerful method for mediating teaching-learning and hence needs to be integrated into different subjects. To integrate, the steps of accessing, reviewing, creating and sharing resources are to be structured into formal curricular experiences.



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Introduction

The role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century. The word ICT can be summed up in the following definition as an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. “ICT can be a catalyst by providing tools which teachers use to improve teaching and by giving learners access to electronic media that make concepts clearer and more accessible”.

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ICT increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. It can influence the way students are taught and how they learn now the processes are learner the learners for lifelong learning as well as to improve the quality of learning. ICT in the field of education are- Easy Access to Learning. ICT also allows the academic institutions to reach disadvantaged groups and new international educational markets. The effectiveness of ICT integration is impacted by the teachers' motivation to integrate, personal knowledge and experience with ICTs, confidence in ICT use, access to ICT resources and training, teacher preparedness and technical and pedagogical support recommended three principles for the improvement of ICT and teacher education:

1. Technology should be infused into the entire teacher education program
2. Technology should be introduced in context and
3. Students should experience innovative technology-supported learning environments in their teacher education program.

ICTs in Teaching

Information and Communications Technology (ICT) can impact student learning when teachers are digitally literate and understand how to integrate it into curriculum. Schools use a diverse set of ICT tools to communicate, create, disseminate, store, and manage information. ICT in education improves engagement and knowledge retention: When ICT is integrated into lessons, students become more engaged in their work. This is because technology provides different opportunities to make it more fun and enjoyable in terms of teaching the same things in different ways

Use of Computers in Teaching

Computers have revolutionized the teaching profession in multiple ways. Teachers use computers to record grades, calculate averages, manage attendance and access data on student performance in online programs and assessments. Computers have also made it easier for teachers to vary their instructional delivery.

Audio-Visual Media

Audio visual aids are important in education system. Audio visual aids are those devices which are used in classrooms to encourage teaching learning process and make it easier and interesting. Audio -visual aids are the best tool for making teaching effective and the best dissemination of knowledge.

Online/E-Learning

eLearning, or electronic learning, is the delivery of learning and training through digital resources. Although eLearning is based on formalized learning, it is provided through electronic devices such as computers, tablets and even cellular phones that are connected to the internet.

Digital Resources/OER

Online resources are Internet-based equivalents of more conventional curriculum resources: books, articles, pictures, movies, games, activities, and homework. Formats include web documents, audio files, images, videos, animations, word processing documents and others. OER stands for open educational resources and refers to educational resources, such as textbooks, readings, multi-media files such as videos and audio clips, assessment tools like exams and test banks, online courses, syllabi and lesson plans, and even software, that are openly licensed.

OER include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.” By using OER, faculty can easily supplement their lectures and learning materials with content that is already openly licensed and available for sharing. By sharing their own work as OER, faculty can maximize the impact and visibility of their scholarly work across the global learning community.

Use of Mobiles in Teaching-Learning

There are multiple benefits to using cell phones as a teaching aid, including improved learning outcomes, increased engagement among students, and an easier ability to keep students up to date about assignments. Cell phones give students access to tools and apps that can help them complete and stay on top of their class work. These tools can also teach students to develop better study habits, like time management and organization skills.

Mobile technology accelerates the process of evaluating learning results and gives students and teachers the opportunity to track progress quickly. Previously, students had to wait days or even weeks for recommendations based on their knowledge

Mobile phones are used for a variety of purposes, such as keeping in touch with family members, for conducting business, and in order to have access to a telephone in the event of an emergency. Some people carry more than one mobile phone for different purposes, such as for business and personal use. Mobile phones are comfortable way of communication over a long

distance. Life becomes so easy and fast by holding the mobile phones. Mobile phones proved to be a big help in emergencies. Mobile phones are also known as lifesavers as helping people in emergencies.

Mobile Phone Benefits.

- Communication. Mobile phones provide the means to communicate with friends, family, coworkers, and indeed most of the world's population instantly
- Small and Convenient
- Photos and Video
- Texting
- Fashion and Self-Expression
- 6. Entertainment
- Notes and Reminders

Disadvantages of Mobile Phones – New Updated 2021

- Easy Communication
- Connect With Relatives on Social Media
- Promote Business via Smart phones
- Good for People's Safety.
- Today Smartphone Is a Fashion
- Help in Emergency Situations
- Make Money From Your Mobile Phone
- It is a Disturbing device

Effect of using Mobile

Apart from cancer risk, mobile phones influence our nervous system. They may cause headaches, decreased attention, shortness of temper, sleep disorders and depression, mostly among teenagers. Radio waves are not the only reason for such symptoms

ICTs in Research

- Applications of ICTs are particularly powerful and uncontroversial in higher education's research function
- Steady increases in bandwidth and computing power available made it possible to conduct complex calculations on large data sets

- Communication links make it possible for research teams to be spread across the world instead of concentrated in a single institution.
- The combination of communications and digital libraries enriching research possibilities for smaller institutions

ICTs and Administration

- Improves the quality and capacity of management information systems to support strategic decision-making and policy implementation
- Stimulate and facilitate free flow of information throughout the institution and functional system respond to the needs and demands of the younger generation for better and increased access to university services and information through the web.

Principles of ICT Application

- ❖ Access
- ❖ Economy
- ❖ Relevance
- ❖ Transparency
- ❖ Privacy
- ❖ Accountability
- ❖ Efficiency
- ❖ Effectiveness.

ICTs for Higher Education

- Research
- ICTs Teaching
- Learner support
- Administration

New Processes the Information

- IT Generated
- Digitization
- Virtualization
- Mass-personalization and mass-customization

Network Generated

- Global standards for Communicating and working together
- Self- Organization (Blogs)

- Mass Collaborations (Wiki -processes for creating free resources)
- Open Resource Development
- Meta- Databases

ICTs and Today's Education

- ICT is an integral part of education system
- Transformed teaching – learning environment
- Improves teaching methods/practices
- More efficient and cost effective education
- Integrates processes and systems
- Make human resources more creative and productive
- Enhances the potential and success of ODL

ICTs – The Current Reality

- The integration of ICTs in higher education is inevitable.
- ICT is moving beyond personal computers to use of mobile technology
- Sound Institutional ICT policy is enhancing teaching and research capabilities
- Digital libraries, access to online databases, networking, etc., can be enhanced through inter institutional collaboration to ensure optimal usage of ICT expertise and resources
- HEIs are yet to mainstream policies and programmes on their generative and developmental roles
- ICT activities are simply ad-hoc projects with limited potential to be self-sustaining and self generative.
- ICTs led to the emergence of Open Educational Resources (OERs).
- ICTs in general and eLearning in particular have reduced the barriers to entry to the higher education
- ICTs in the form of Management Information Systems are increasingly universal.

CONCLUSION

There is an additional requirement of teachers' motivation and incentives to participate actively in ICT enabled professional development activities. A variety of incentives can be used, including certification, professional advancement, participate in professional development, formal and informal recognition at the institution and community levels. Innovative practice is the way to enhance our quality education. Teachers should nurture and strengthen such

practices with proper evaluation so that we can exist in the challenging atmosphere. The quantity and quality of the lessons addressing technology usage should be increased. More ICT-related courses for prospective teachers should be offered and every ICT-related course should be based on practice-oriented. Course content should be redesigned to acquire more benefit from ICTs and it should be supported by a course delivery system e.g., Learning Management System (LMS).

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