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Role of Teacher in a University for Higher Education Teaching learning through ICT and E-learning

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Abstract

A teacher's contribution to teaching and learning is crucial in higher education. Teachers are acquiring different ICT-related teaching and learning skills. The systematic use of ICT tools and online learning resources constantly promotes universal accessibility for all students. As a result, our exceptional teachers' skills, knowledge, methods, approaches, etc., continue to advance. This article will look at how higher education institutions manage their teachers4' e-learning initiatives and ICT skills. Descriptive analysis of secondary data was employed in the technique. Information was acquired from various sources, such as websites, journal articles, e-book reports, virtual observation of various organisations and commissions, articles published in local, national, and international newspapers, etc. ICT and e-learning will support innovative learning applications. Students can access e-books, digital learning resources, digital repositories, etc., through student support services. This strategy will also create online resources for open and remote teacher training.

Keywords: Education, university, teaching, modern technology, ICT, E-learning.

Introduction

The world's learning environment is changing thanks to information and communication technology (ICT) and electronic learning (E-learning). Most students today can use the e-learning approach using ICT technologies because we live in a digital age. We know that a qualified teacher is necessary for the teaching-learning process to succeed. Teachers encounter complex settings during lessons and other academic tasks (Anamuah, 2003). After finishing their studies, our teachers are always involved in other activities. Most of the necessary work is completed using ICT in an online mode. The interaction between teachers and students is a key idea and aspect of successful, high-quality education (Pelgrum, 2002). When an educational policy must be introduced in the area of ICT and E-learning, explaining another need of teachers and suit also be accessible for instructors and students both according to work is necessary. When an educational policy in ICT and E-learning must be

introduced, explaining another demand of teachers and suit also be accessible for teachers and students according to work is necessary. The fundamental characteristic of UNESCO is using ICT in creating pre-service or in-service teacher preparation programmes. Because having the right management abilities is essential to operate in a university, management is crucial to this course. Management is the systematic and scientific process of carrying out tasks. At the university level, the teacher tremendously impacts by using critical ICT technologies (Davis et al., 2009). Teachers gain information, stay current with student needs, and adapt their teaching methods to suit different needs. Potential users need to understand how to use new ICTs effectively and have a cultural perspective on how learning and technology are related (Leach et al., 2005). Three strategies are described in the UNESCO (2008) ICT competency criteria for teachers: technological literacy, knowledge-deepening, and knowledge production. The most valuable technologies for this stage of the electronic learning process are wikis, digital textbooks, blogs, social book marketing, storytelling games, social networking, virtual worlds, and electronic portfolios (Innes & Wilton, 2018).

Need and Significance of the Study

The needs of this study are pertinent to modern cultures and how technological guidance is used in university teaching-learning and other forms of education. Our professors are the mainstay of a university; they can make any situation unpleasant by simply smiling (Dladla & Moon, 2002). How can educators help kids acquire new information, life skills, a better learning environment, etc.? What is a student's fundamental need to learn? Academicians and administrators at a university will systematically work through the various stages, and they accomplish this with the aid of ICT tools. Teaching a university's learning process requires using e-learning materials and information (Beringer, 2009). The role of teachers in converting managerial abilities in ICT and the e-learning process in a university is discovered by this study.

Objectives of Study

a. To study the management of ICT abilities by teachers in a university.
b. To study the administration of teachers' roles in university e-learning procedures.

Methodology of the Study

In a secondary data-based work, the researcher gathered information from various sources, including journal articles, reports, websites, virtual observations of multiple organisations, and local newspapers' publications of national and international stories. The role of teachers in converting ICT and E-learning Management for higher education in a university will be briefly discussed in that paper. ICT, E-learning, skills, professional development, etc., are crucial for a brief paper description per the objectives.

Role of the teacher in the Management step of a university through ICT and E-learning

A university's teachers and students are both valuable resources; because teachers are always learning new things, students may want to learn from them daily. Here, a teacher can work in many stages, such as...

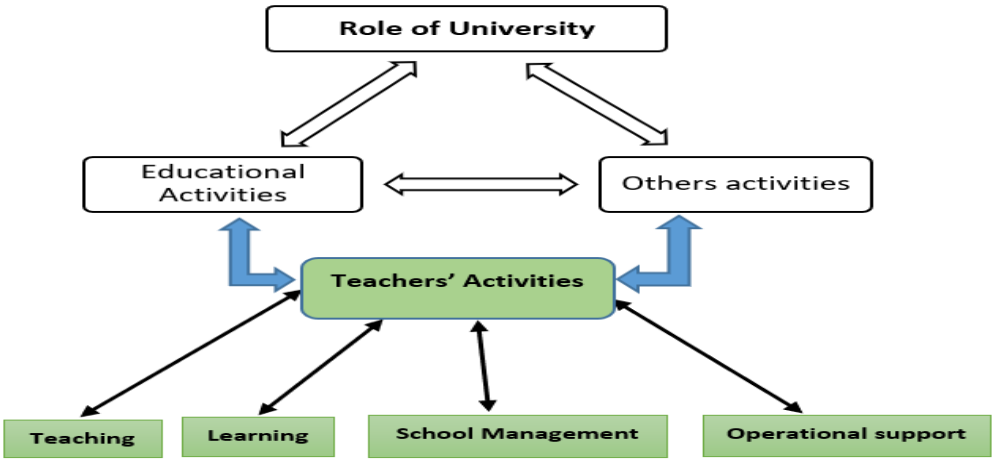


Figure- 1. The primary role of a teacher in a university.
Sources: Author Compilation

E-learning

E-learning is the process of delivering education over the internet. Because it primarily relates to content given via the internet or intranet, online learning can be seen as a subset of the larger e-learning category. Education-related sectors have unrestricted access to educational resources under the UNU software licence. Online educational resources and open-source online learning platforms are expanding quickly in both business and education (Olakulehin, 2007).

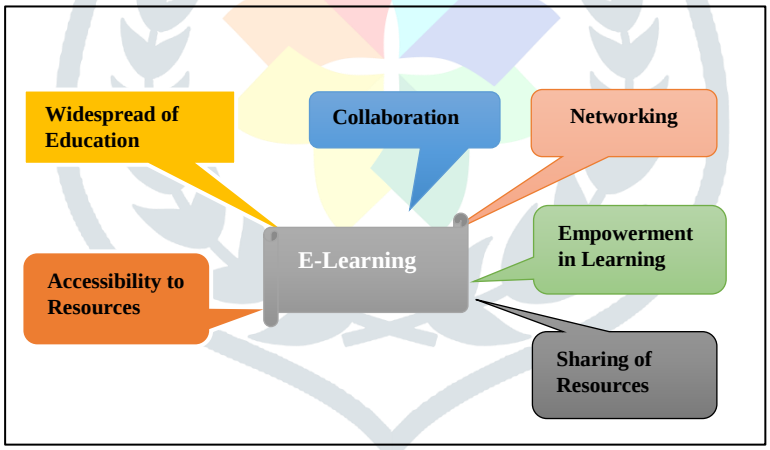


Figure-2. E-learning activities.
Source: Author Compilation

Significance of e-learning

When online education is unavailable, it deals with flexible learning; e-learning can handle the circumstance. It is designed for effective and efficient learning, and the pace and accessibility are up to the learner (Bell, 2002). Disseminating knowledge on and igniting adaptation, acceptance, translation, and distribution of rare educational resources across many media and forms can be advantageous leverage. This will encourage its wide availability and widespread use (Reeves, 1998). Wide Area Network distant learning is supported by it. Organising the subjects to be taught and developing multimedia CD ROMs or websites tackles the practical part of learning (Cox et al., 1999). The ability to hyperlink and include interactive elements that clarify challenging concepts for exercise purposes is a considerable advantage.

Meaning of ICT

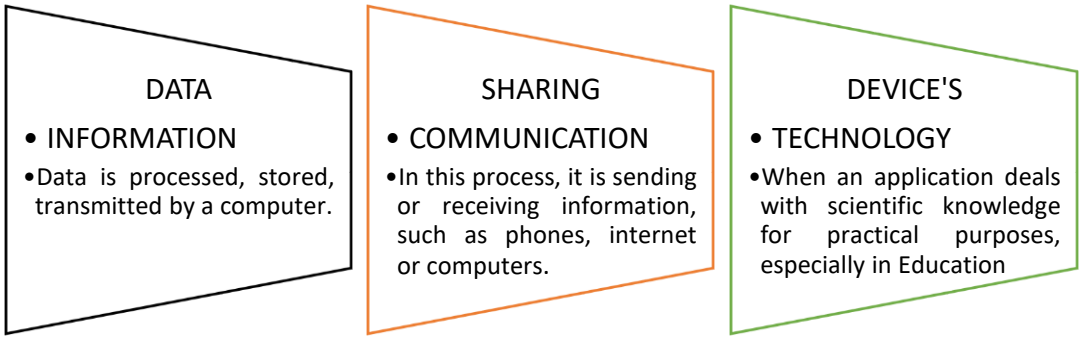


Figure-3. ICT can work through

Sources: Author Compilation

A university teacher can use sharing knowledge sharing students differently, and every teacher develops skills through govt. and non-govt. Organisations.

Teachers will have access to ICT skills during the training time based on their aptitude and calibre. The Indian government has been trying to improve teachers' expertise in ICT and e-learning domains (NCATE, 2008). For instance, the "Microsoft Shiksha" training programme emphasises leveraging ICT applications to impart learning for teacher training. This training programme created skills and used them in the real world of classroom instruction. To achieve learning goals, numerous programmes have been launched in India. For instance, the '*Sakshat Portal'* for the Government of India programmes like the Multimedia Educational Resource for Learning and Online Teaching (MERLOT) and the National Program on Technology Education Learning (NPTEL) aim to produce high-quality digital content for various educational levels.

Source - Internet

Major modern Technologies for teachers

- Computers
- Software Applications,
- Electronics
- Communication Network

From the management point of view, teachers are working through…

ERP –Enterprise Resource Planning (SAP for Budgeting)
CRM –Student Relationship Management
EMS –Employee Management System
PMS –Performance Management System

The technology used in Education for the teaching-learning process

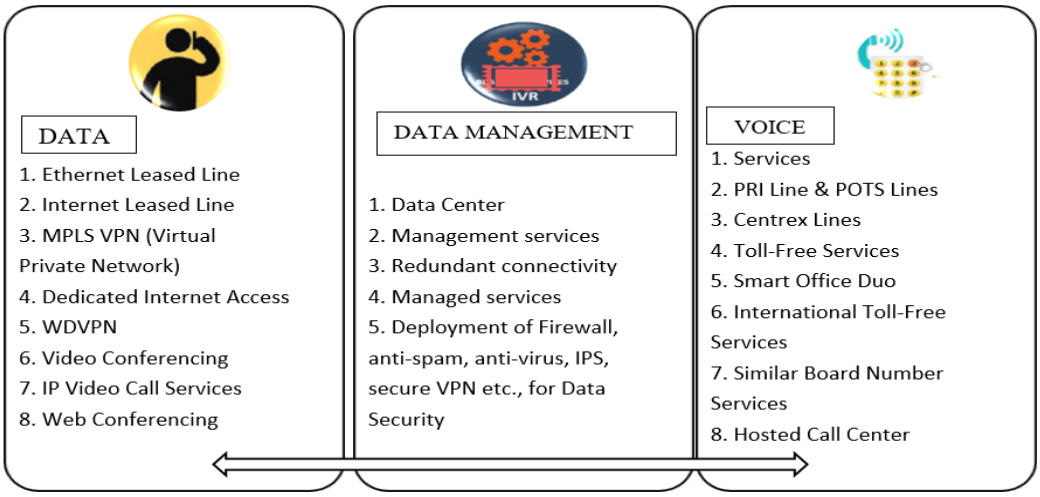


Figure-4. The technology used in Teaching-learning Process

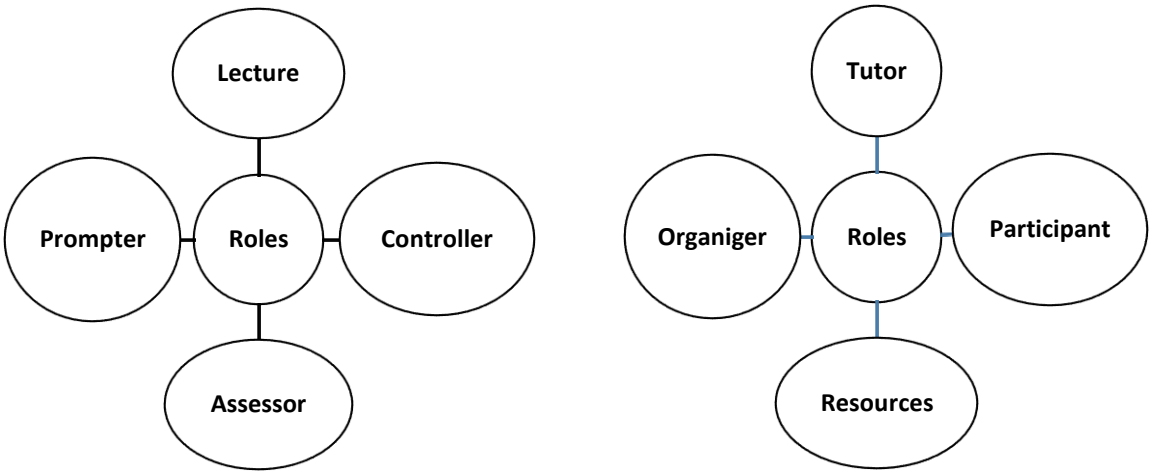
Sources: Author Compilation

All the diameters are crucial teaching-learning tools for instructors and students in higher education. A university organises adaptable strategies for bringing in students from the new generation to advance knowledge for improved education (Ringstaff & Kelley, 2002).

Role of teacher in higher education through ICT and E-learning implementation

- To put into practice the fundamental tenet of education for lifelong learning and overall growth.
- Boost the adaptability of educational services and teaching techniques.
- To encourage equal opportunities for all students to receive the proper education and information.
- To access a system for extending and gathering different types of educational data globally.
- More concentrated on online learning with SWAYAM and MOOCs.
- All citizens' e-literacy was mainly concentrated on students.
- Fostering a culture of learning across all institution levels (development of learning skills, expansion of optimal education, open source of education, etc.)

On the other hand, more teaching positions in a higher education institution on several dimensions (Wenglinski, 1998).



Flow chart-1. Non-academic role of the teacher

Sources: Author Compilation

Teacher role and management for Improvement ICT and E-learning

- A crucial global challenge is raising the standard of instruction and learning. The institution and the teacher can create a positive learning environment. ICT and e-learning can improve education quality in several ways (SITE, 2002).
- By effectively managing teaching approaches, learners' motivation and activity engagement are increased.
- Offering several forms of facilitation to improve physical abilities
- The university also offers a curriculum for teacher preparation that is skill-based. ICTs and e-learning are game-changing instruments for fostering a learner-centred environment (Haider, 2012).
- A variety of ICTs and E-Learning resources, including television, audiobooks, multimedia computers, and moving text and images, can involve students in the learning process.
- The teachers firmly believed that when incorporated adequately with the textbook and curriculum, the audio-visual combination may perform miracles to quickly convey complex concepts and reasoning to the students.

Helping hand for management ICT and E-Learning skills for teachers

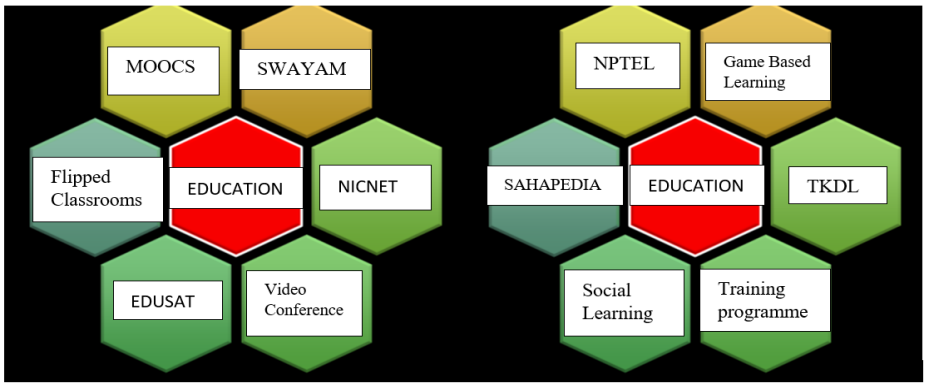


Figure-5. The different platforms for online learning

Sources: Author Compilation

Digital Resources for teachers in a university

According to Siddiqui (2011), stated these digital resources can help to quality education

- Desktop and laptops
- Projector
- Digital cameras
- Printer
- Photocopier
- Tablets
- Popplet
- Pen Drive
- Microphones
- DVDs and CDs
- Word processing
- Spreadsheets
- Animation
- Presentation software
- World Wide Web
- Android App
- IPod
- Web boards
- Scanners
- Video Games

Cloud Service for the teaching-learning process

- Application Services (services on demand)
- Gmail, Google Calendar
- Payroll, HR, CRM etc.
- Sugarm CRM, IBM Lotus Live
- Platform Services (resources on demand)
- Middleware, Interrogation, Messaging, Information, connectivity, etc.
- AWS, IBM Virtual images, Boomi, Cast-iron, Google Appengine
- Infrastructure as services (physical assets as services)
- IBM Blue house, VMWare, Amazon EC2, Microsoft Azure Platform, Sun Para scale and more.

Conclusion

In this final section, we conclude that teachers can use ICT and e-learning to raise the calibre of instruction. Student and instructor interaction is more adaptable, appealing, collaborative, and methodical during classroom and online learning. There is no need to use a classroom because an innovative university framework would

host courses online with different learning management systems. Additionally, innovative management presents a variety of applications that can support student management and learning. ICT offers a variety of tools that are practical and better suited for understanding. As a result, educators provide open possibilities to deliver education to students in rural areas who live at their doorstep. A university is essential for delivering high-speed internet service of consistent quality at a reasonable price, lowering the cost of education from high to inadequate levels, and meeting the needs of various student populations. Additionally, it permanently helps strengthen the efficacy and efficiency of educational administrative actions and policy.

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