Use of ICT in Developing Effectiveness of Teaching Skills for Teachers in Higher Education

Mr.Amrik Singh[1], Ms.Pardeep Kaur[2]
[1,2]Guru Kashi University, Talwandi Sabo

Abstract
Internet, broadcasting technologies, E-Learning systems, video-conferencing, virtual courses, E-meetings, E-collaborations, and remote learning are all examples of ICT. The development of new broadband communication services and the convergence of telecommunications with computers have opened up a slew of new opportunities for teaching and learning systems to employ a number of new technologies and applications.With its ability to integrate, enrich, and interact with one another over a vast geographic distance in a meaningful way to fulfil learning objectives, the integration of computers and communications presents new prospects to Higher Education Systems. ICT can be utilised as a stand-alone or as a supplement to teacher education (Collis & Jung,2003). In this article, I suggest a project called "E-Competency Initiative for Higher Education Staff," which I believe should be initiated by the Indian government and executed across the country.
Keywords: E-Competency, E-Learning, Higher Education Systems, ICT, ICT Tools & Technologies.

INTRODUCTION:
ICT stands for Information and Communication Technology and is defined,

for the purposes of this primer, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information" (Blurton, 2002).ICT is a broad phrase that encompasses all forms of communication and applications. ICT is now pervasive in practically every area of our life. Computers and the Internet are still in their early stages in underdeveloped nations like India, if they are utilised at all, due to insufficient infrastructure and expensive connection prices. In recent years, there has been a greater understanding of how computers and the Internet may be used to improve the efficiency and efficacy of Higher Education at all levels, in both official and informal settings.The study found that ICT can help to strengthen the three traditional components that make up the goal of higher education: imparting education, conducting research, and providing service to society. The study emphasised the need for national and institutional guidelines to support the use of ICT in research, as well as the role ICT may play in strengthening the improvement of the Higher Education System and its Institutions. The study also looked into the impact of ICT in improving quality, expanding access, and lowering costs in the classroom.The study will look at recent trends in ICT use as well as novel dynamics that might be implemented in the Higher Education System. ICT is a driver of transformation, but without careful planning and strategy, it can have unintended consequences. ICT has the potential to become a dominating instrument for extending formal and non-formal Higher Education possibilities to previously neglected audiences, such as scattered and rural populations. ICT contributes to the development of 21st-century abilities such as digital era learning, inventive

thinking, higher-order intellectual and comprehensive reasoning, effective communication, and exceptional productivity.It provides opportunity to create unique teaching approaches and to use more engaging content to pique students' attention. This study looked at all of the players involved in implementing ICT in the higher education system, including students, professors, higher education developers, managers, and recruiters. ICT applications are particularly effective and well-recognized in the research function of higher education. Despite the widespread usage of ICT in university classrooms, research on E-Learning adoption indicates that it has not yet realised its full potential.

ICT for Learning :

 The positive use of computers in Higher Educational contexts is reliant on not only on their obtainability but also on users' familiarity with them. This also holds correct for access to the Internet. The pointers of the report paint an image of a population – and especially a youth population – fully embedded in a multimedia world. ICT technologies are vital in helping teachers provide innovative teaching and learning openings but they also play a noteworthy role in delivering effective College management.
Teachers' use of ICT can have a variety of advantages, which may be amplified if students are allowed to utilise ICT in the learning process. According to studies, adopting ICT can boost students' motivation to learn by providing them greater control over their learning experience. Students' usage of ICT can also help them study in a more customised and customised way. Furthermore, when ICT is utilised to promote subject-

specific learning, it can improve student achievement.Teachers are encouraged to employ a variety of ICT gear and software in the classroom by central-level commendations, suggestions, or support material, and this applies to virtually all core curriculum courses in almost all nations.

➢ Teachers often acquire ICT teaching abilities during their first higher education, but professional development is uncommon.

➢ Digital literacy is mostly taught by specialist ICT teachers, but it is also taught by other expert teachers in around half of the nations, such as mathematics or science instructors.

➢ Despite the fact that ICT is included in teacher education rules, actual ICT-related pedagogical abilities are rarely addressed at the national level.

Teachers who are skilled at incorporating ICT into the educational process are more likely to engage in mathematics rather than science.

ICT for Teachers :

The inventive capabilities of new technologies provide the opportunity for the creation of alternate knowledge sources for both instructors and pupils. Faculty must adjust to the changing role of the lecturer, which is to move away from traditional lecturing and toward tutoring and facilitating students' increasingly independent, self-directed learning processes. (Yuen, Law, & Wong, 2003).

➢ For our E-Learning pilot course the consequences of the above described process result in measuresthat engage the involved faculty staff. It is essential to build up a local or to have access to a regionalE-Competency program that train teachers in use of the different aspects of the new technologies such as the content management system, the administration tools, the communication tools and the strengths and weaknesses of different types of media.

➢ Learning is heavily reliant on the learner's own personal drive. We should aim to incorporate certain aspects that are focused on interaction since the move from teaching to learning implies that the student will have to actively pursue his or her course of study. The major goals of technology-based activities are to stimulate learning in the virtual classroom.It is useful in this stage of the processto define the components of learning activities and to use the technology in order to realize commonlearning activities such aswebcast, presentation sequences, drill and practice, scavenger hunt, guided research, guided analysis, team design, brainstorming, case study, role - playing scenario, group critique, virtual laboratory, and project-based hands-on activity and learning game.

➢ Technology-enhanced activities are a learning method that has to be treated with care, becausethings can always go wrong in technology. So you risk frustrating your learners in activity settings ifyou don't give them relevant information beforehand and cause therefore problems. So makesure that you support your activities with clear measures and information sets as select appropriate activities, provide complete, clear instructions, publish guidelines for message posting, moderate discussion groups, design entry forms to structure thought and use internet as source for material.

➢ Communication over the internet is a sensitive procedure that requires specific attention in order to protect the goals you've set for your virtual learning environment by adopting such proactive actions. When using

technology-based discourse and communication processes to inspire students in virtual classrooms, try to incorporate measures like these.

The internet provides access to an enormous amount of data. In a restricted scope, the pilot course can combine internet-based resources. Include some external resources such as libraries, museums, glossaries, employment aids, mentorship, conferences, guided tours, field trips, and simulations if you wish to allow learners to travel outside the primary subject of your digital course.

ICT for Learners:

The technology-based innovation of the Higher Education systems affects the way students organize their learning. The digitalization of information leads to completely new forms of knowledgerepresentation within universities. The traditional classroom system limited the access to relevantinformation for the students to printed documents and the lecture and discussion that evolved in thecourses. The digital representation of knowledge adds new gateways for the students to the relevantdocuments they need for their learning.We also have to take into account that the majority of students that enter the universities have already.

➢ The new technologies cause a merger process of the different kind of services that a Universityoffers to them. The university administration has to take care that the integration E-Learning offers aconsistent picture of the merging of different services in virtual universities such aspaying the university fees, offering student survives, giving academic assistance, generating general discipline and course information and assisting enrollment in the courses.

➢ The students have to know what is expected from them when they start an E-Learning course. So itis an important preparatory action of the teachers to explain the students the fundamental differencesbetween traditional and technology-enhanced courses and thusto explicate the different roles of traditional classroom learning and E-Learning, to motivate students to develop self-organized learning strategies and to offer help for students starting with technology-based learning.

➢ Technology often fails or does not function the way we expect it to function. In a virtual learningcourse this might lead quite fast to a de-motivation of the participants and ends finally in a high rate ofdrop-outs. To avoid this situation the teachers have to offer full student support for all E-Learningrelated problems like computer-related problems, admission requests, course selection queries, enrollment in classes, provide academic advice and provide personal assistance.

➢ When a problem emerges, we would like to get immediate help. So if a student does not cope with acertain situation in the course, it will be helpful to allow different communication channels for support as web-based channels, telephone and face-to-face.

➢ Learning communities are enriching the learning process in virtual learning environments and canserve as a good base for the students to exchange ideas and find collaborative solutions for certaintasks. But a vivid learning community depends on a high level of support from the teachers to build upand promote collaboration between the learners. Some steps that can foster a learning community are:

- stimulate the creation of learning communities offering the students mutual support
- try to build learning communities based on personal relationships between the students
- enhance team building with project-based tasks in the learning communities
- create 2 - person teams for working on special tasks
- allow fun and humor and create interest in your virtual classrooms
- integrate a personal touch of the participants in the learning community
- determine the kinds of collaboration mechanisms
- implement collaboration policies
- ➢ The internet offers specific collaboration tools that are useful for the communication in learningcommunities such asemail, discussion groups, chat, whiteboard, screen sharing, response pads, audio conferencing and videoconferencing.
- ➢ The best thing to avoid technical problems in an E-Learning pilot is to test the whole system inadvance. But the running course also will need a contact opportunity for learners who get lost. So try tointegrate support measures in your E-Learning pilot such as:
- plan technical support
- provide complete instructions including instructions on used tools in the virtual classrooms
- solve problems in advance
- support learners
- test your course

The E-Competency for Academic Staff in Higher Education

As we have learned from the reports E-learningis on its way, but there remain a bunch of problems to be solved.

In the context of Higher Education, we define E-Competency as the integration of pedagogicalconceptsand institutional frameworks into the process of technological innovation in teaching and learning. Webelieve that E-Competency will be one of the key, decisive factors in the full exploitation of the potentialof new media. Further, sustainable diffusion of E-Learning will be dependent on the competencies andthe commitment of all those involved in Higher Education.The aim of the E-Competency Initiative is the improvement of an appropriate qualificationfor academic staff in Higher Educationin the use of ICT in teaching and learning.

Conclusion:

ICT is pervasive in shaping all parts of our society, economy and culture. Since 2000, the European Union has stepped up its activities to improve E-Learning and the improvement of digital competences through Higher Education. ICT has not yet altered teaching and learning as it has in other critical areas such as industry or public services, despite the fact that the institutions have been ICT-equipped and instructors and trainers have been ICT-trained. Today's pedagogical, technical, and organisational advances necessitate a more comprehensive and revised approach to the use of ICT in Higher Education and Training. In the recent decade, technological transformation and innovation have had a significant influence on society and higher education.The effective integration of ICT in Higher Education System can be possible by applying following concepts:

- ➢ ICT as a basic Higher Education and training tool
- ➢ ICT as an enabler of lifelong learning

➢ ICT as a key driver for creativity and innovation

References:

1. Collis, B., (1989), "Using information technology to create new educational situations", Paris: UNESCO International Congress on Education and Informatics, pp. 19.

2. Yuen, A.; Law, N. & Wong, K., (2003), "ICT implementation and school leadership Case studies of ICT integration in teaching and learning", Journal of Educational Administration,Vol. 41, No. 2, pp. 158-170.

3. Blurton, C., (2002), "New Directions of ICT-Use in Education", UNESCO World Communication and Information Report. Paris: UNESCO. Available online http://www.unesco.org/education/educprog/lwf/dl/edict.pdf