ICT Tools Usage among Faculty of Education in Teaching Learning Processes

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ABSTRACT

Information and communication technologies (ICT) is defined, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information". The present study aims to study the usage of different ICT tools used by the faculty of Education in effective curriculum transaction. A rank analysis is done based on their responses to a data sheet. The emphasis of orientation and awareness programs for the faculty is signified in the study. To reach the goal of preparing teachers for effective technology use, a well-designed professional development program is essential. ICT can not only improve learning; but can also break down teacher and student stereotypes and boost self-esteem and would revolutionize the higher education system.

Keywords: ICT, Curriculum Transaction, Professional Development Program

Since the 1980s, the integration of computer technologies in education has been a challenge for many educational systems throughout the world. In educational reforms the teacher is the last but most crucial chain in the process of educational change. ICT stands for information and communication technologies and is defined, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information."

To reach the goal of preparing teachers for effective technology use, a well-designed professional development program is essential. Professional development in a technological age requires new definitions and new resources. It cannot take the traditional forms of individual workshops or one-time training sessions. Instead, it must be viewed as an ongoing and integral part of teachers' professional lives.

As a result, the use of technology enables teachers to implement new teaching techniques, to help students work collaboratively and develop higher-order thinking skills, to encourage

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students to be engaged in the learning process, to assist students who have various learning styles and special needs, and to expose students to a broad range of information and experts.

Background of the study
Globally, there is a lack of research addressing the adoption of ICT in higher education and the effective use of hardware components of ICT used in teaching learning processes. In this study, the focus is on what is termed hardware – the components of ICT like the computer itself, storage media, and input and output devices. A teacher should have the pre-requisite competencies in handling these tools to quench the thirst of students with varied discipline and abilities. ICT is making it increasingly easy for teachers and students to have access to a broader range of materials than they can use in the classroom.
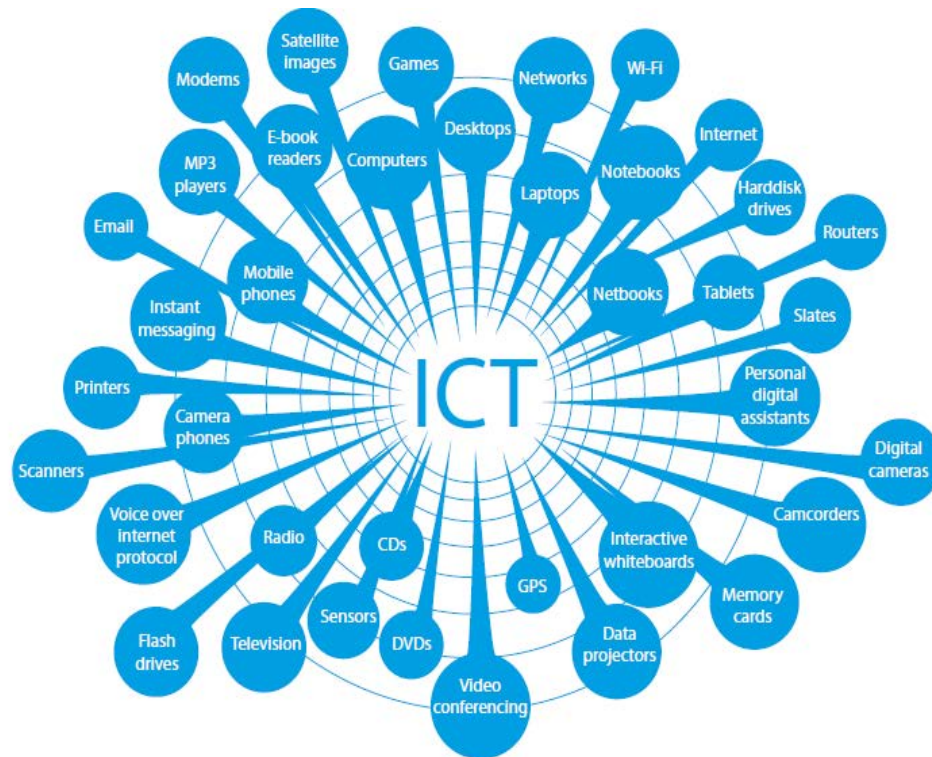
Objectives of the present study
1. To study the usage of ICT tools among faculty of Education in teaching learning process.
2. To rank the most used ICT tools by the faculty in effective curriculum transaction.

METHODOLOGY
Descriptive method is used in the present study. Eighty faculties from 22 colleges of Education were selected in random for the study.

Tools used

The tool is used to collect the personal information about the teachers. Here the information regarding the Age, Gender, Educational Qualification, Designation, and Teaching Experience, Administrative Duties held in institutions and Internet Access at home are collected. In addition, a tool containing different ICT tools is given. Teachers respond to it based on their experience and know-how of the ICT tools. After obtaining the responses, the usage of ICT tools were scored as "High", "Medium" and "Low".

Table 1: Frequency and Percentage on Personal Variables

Sl.No	Variables		Frequency	Percentage
1	Gender	Male	37	46.25
		Female	43	53.75
2	Educational Qualification	MEd	49	61.25
		MPhil/PhD	31	38.75
3	Internet Access at home	No	21	26.25
		Yes	59	73.75
4	Age	Upto 30 Years	22	27.50
		31-39 Years	34	42.50
		40 Years & Above	24	30
5	Designation	Lecturer	71	88.75
		Assistant Professor	2	2.50
		Associate & Professor	7	8.75
6	Teaching Experience	Upto 5 Years	42	52.50
		6 to 10 Years	26	32.5
		Above 10 Years	12	15

Table 2: Rank Analysis on ICT tools usage

Usage of ICT	Sum	Mean	Std. Deviation	Rank
Computer and Mobile Apps	183	2.288	0.660	6
Email distribution list	181	2.263	0.590	7
Web portals	171	2.138	0.707	11
Windows Office (Word, Excel, Power point, Outlook)	201	2.513	0.636	1
Podcast	152	1.900	0.739	16
Blogs	149	1.863	0.725	17
Video-streaming	160	2.000	0.636	14
Local Area Network	191	2.388	0.606	3
LCD	199	2.488	0.574	2
Smart classrooms	186	2.325	0.652	5
Interactive boards	180	2.250	0.720	8
Network drives/ Cloud Computing	159	1.988	0.755	15
Personal Digital Assistants	161	2.013	0.755	13
GPS and GIS in Classrooms	159	1.988	0.771	15
Portable Electronic Keyboards	174	2.175	0.725	10

Usage of ICT	Sum	Mean	Std. Deviation	Rank
Digital Cameras/ Scanners/ Printers	190	2.375	0.663	4
Online Courses/ Tutorials	165	2.063	0.663	12
Virtual labs	165	2.063	0.735	12
E Books and Digital repositories	179	2.238	0.680	9
Social Networks	174	2.175	0.671	10

RESULTS AND DISCUSSION

Based on the results of different ICT tools used by teachers, a rank analysis is made. Among the 20 ICT tools used by the faculty of Education, the usage of Windows office ranked the highest as it is found to be used commonly for curriculum transaction, presentations, e-assignments etc., it is followed by computers, mobile apps and digital scanners/printers. The least used ICT tools among the faculty are podcast, blogs and GPS/GIS technologies in classrooms. This reason could be the lack of awareness on these tools which has resulted in less penetration in usage. Proper training and orientation can make the usage of tools to the maximum.

CONCLUSION

ICT will be a key factor in future positive change – provided they are in the possession of people who use them creatively and for the common good. In the new Millennium, nations are judged by the well being of their citizens; level of education is one of the major determinants. Computer literacy of a nation in future will be a yardstick to measure the level of education.

Conflict of Interests: The author declared no conflict of interests.

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