USAGE OF E-LEARNING TOOLS: A GAP IN EXISTING TEACHER EDUCATION CURRICULA IN INDIA

By

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ABSTRACT

In India usage of internet in education is not an innovation, but it is still considered to be in initial stages. Government of India has taken lot of initiatives for the implementation of e-learning at all the levels of education from past many years, but still teacher education programme around the nation continue to be challenged to prepare prospective teachers for using technology meaningfully in their instruction, as they are not yet prepared to do so. National Curriculum Framework for Teacher Education (2009) has also embedded the part of ICT (Information and Communication Technology) in the curricula of teacher education but there is disinclination for the usage by both teacher educators and trainee teachers. In order to explore deeper in the realm of it, the researchers had conducted a study to identify the status of e-learning in curricula of teacher education, infrastructural facilities, and usage of e- learning tools for instruction by teacher educators and trainee teachers. The findings of the study have revealed that though the curricula related to e- learning was ample in the selected university but the infrastructural facilities were not accomplished in many terms like internet connection and time provided to use it. The trainee teachers were skilled with the basic computer applications but they are lacking the skill of using various special skills required for e- learning. Also the usage of e-learning tools by teacher educators like email, chat, discussion groups, downloading the content was average but they are not involved in preparing online courses, taking online classes, video conferencing and uploading the educational content. Similar results were found in case of trainee teacher for which they are motivated to use the e-learning tools.

Keywords: Teacher Education, E-learning Tools, Curriculum.

INTRODUCTION

Internet is influencing the lives of people in all the aspects and enabling every person to be more independent, interactive and collaborative. In the past few years the growth has been replaced through personal computers to mobiles and tablets. Internet holds the potential to exchange information and address various problems of learners in classrooms. Along with this the advent of online learning has changed the concept of traditional classroom and face to face learning. Internet can be used appropriately in instruction to enhance students learning, increase motivation and induce positive attitude and change. For this teachers play a vital part in the success or failure of this educational innovation. Teachers must use innovative methods for teaching so that learning becomes more enjoyable and interesting to students. Smyth and Shacklock (1998) said that the image of education is revamped by reconfiguring the work of teaching in that the teachers appear more as deliverers of knowledge and pedagogical technicians. According to Wenglinsky (1998) 'teachers who use technology in the service of higher order thinking skills are associated with students who's standardized test scores are higher'.

In our country, despite the increased availability and support for ICT integration, relatively few teachers intend to integrate ICT into their teaching activities. The "National Policy on ICT in School Education" (2012) formulated by the Department of School Education & Literacy and Ministry of Human Resource Development (MHRD), Government of India, aims to prepare youth to participate creatively in the establishment, sustenance and growth of a knowledge society leading to an all around social economic

development of the nation and global competitiveness. Government of India has also announced 2010-2020 as the decade of innovation and for the fulfillment of this task, the area of teacher education cannot be secluded. Today when almost all the schools are having technology based smart classes, teacher educators and pre-service teachers should be trained for the content knowledge of computer technology which can prepare impressive teaching tools towards greater learning. Earlier in year 2000, Intel launched a programme for both in-service teachers and pre-service teachers to integrate technology into the classroom. This programme enabled teacher educators and teacher trainees to discover how to create technology enhanced units in collaborative teams and develop tools that motivate students and help them to become self-directed learners. Institutions catering to teacher education have generally been the slowest and most unenthusiastic in adapting to anything that is new and off the beaten track, especially to the demands of ICT. Teacher education programme around the nation continue to be challenged to prepare prospective teachers to use technology meaningfully in their instruction and for this teacher educators should also have competency to use it effectively. They need to understand how to use powerful productivity software, multimedia tools, and the internet to promote inquiry-based learning. Till now the teachers at all levels are puzzling over the technological aspects that create a fear among them. It is necessary to study these issues and paradoxes related to technology that are emerging in the area of teacher education in our country. It has severely affected the quality of teacher education in the country, with major repercussions on the quality of education imparted in schools and colleges. The questions arose here are what is the role of teacher education in preparing teachers for such situations? What are faculties of education doing to prepare future teachers to respond to innovations through technology?

Need of the Study

Teacher educators and trainee teachers cannot ignore the trends and pressures for professional development. The changing world brings a rapidly changing pressures for the professionalization of teaching and demands for more meaningful pedagogical approaches. Teachers' educational practices are an embodiment of their own educational beliefs and images and constitute the expression of educational intentions having the power to influence schooling. Teacher trainees and teacher educators have little training in modern technology and all skills related to its use. It should have an objective to prepare computer literate teachers who have the ability to cope with it comfortably and effectively. In 2006, NCTE has signed an MOU with Intel Technology India Pvt. Ltd. with a view to achieve objectives of imparting sustained professional development to all teacher educators from all the recognized institutions and making ICT an integral part of Teacher Education Curriculum. Students and faculty should experience e- learning with enthusiasm. If teachers are trained for the new practices they a likely to adapt technology. According to Mehlinger (1996) Most pre - service teachers know very little about effective use of technology in education. Dr. K.Nachimuthu (2010) studied the usability of e-Learning Resources in Teacher Education of India and one of the result is that teachers are not accepting the new innovations in their classrooms. B.V. Gopal and K. Anandan (2013) found that B.Ed. Students are having lesser attitude towards e-learning for the classroom Instruction and B.Ed. students are to be strengthened to utilize the e-learning components in their classroom. Teacher-educators may be given in-service training on e-learning, so as they are able to use e-learning features in their teaching methods. Preparing the teachers to meet these challenges and enhancing the quality of teacher performance through alternative modes of professional development of teachers is currently an essential need. A framework for ICTs in teacher education is a holistic framework, UNESCO (2002) planned for infusion of ICTs into teacher preparation programs taking into account factors like cultural, educational, technology resources that are important in planning the integration of technology into pre-service curriculum.

All teacher education institutions in the country need to confirm certain essential requirements and standards laid down by the NCTE which is recognized to run teacher-training programmes. A component of ICT or separate courses in ICT related subjects have now become an integral part of the curricula in these programmes. In the

present scenario e-learning tools can be effectively used in teaching learning process and teachers at all levels should have a positive attitude in this direction. This is the time when the students and the teachers together have to work for global competitive environment. But many teacher education institutions are deficient to prepare for the task. This leads to lack of necessary competencies for dealing with the demands of the profession. For this teacher educators have to prepare future teachers to successfully integrate technology into the classroom. Their present knowledge and status has to be surveyed. For that the researchers have conducted a study for the provision and usage of internet related facilities by teacher educators.

Objectives

The study has following objectives-

- To analyse the Secondary Teacher Education Curriculum in terms of content inputs related to Computer/ICT.
- To study the provision of internet for teacher educators and trainee teachers in teacher education institutions.
- To study the topics related to basic concepts of computers being taught to trainee teachers by teacher educators.
- To analyse the e-learning tools usage by teacher educators in teacher education institutions.
- To study the educational purpose for which trainee teachers are encouraged to use e- learning tools.
- To study the degree of usage of technology by trainee teachers during practice teaching.

Operational Definitions

E-Learning tools

Tools for creating, delivering, managing and/or learning and/or providing a formal social learning environment e.g. Video conferencing, wikis, blogging, e-mail, chat rooms, discussion forums.

Teacher Educators

They are the higher education faculty responsible for teacher preparation for secondary and senior secondary level.

Trainee teachers

They are the students who are enrolled in the course of B.Ed. (Bachelor in Education) for training to become a teacher professionally.

Moodle

Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments.

WizIQ

WizIQ is an online education platform that connects educators and learners to deliver synchronous and asynchronous courses.

Delimitation of the Study

- The sample of the study comprises of secondary teacher education institutes of one university only (i.e. Guru Gobind Singh Indraprashtha University, Delhi, India).
- Presently the ICT/Computer curriculum of this university has been revised and many new topics related to internet or e- learning tools has been imbibed but due to semester system introduced first time in university pattern, this revised subject is not being taught till now. So the responses obtained from teacher educators are of their past experience that is of previous sessions.

Method and Procedure

Proposed study has been conducted for the need of identification and justification of research on the availability, acceptability and usage of e-learning tools in secondary teacher education institutions. For a pilot study, the sample of the study is comprised of only 30 teacher educators from 12 B.Ed. colleges affiliated to Guru Gobind Singh Indraprastha University (GGSIPU), Delhi. A self made mixed type of questionnaire having 14 items was administered on them, in which respondents were asked open ended, yes/no type and multiple choice questions. Data had been collected through face to face interaction with the respondents and also through email. The respondents were asked to mark the relevant response category on the questionnaire. Some teacher educators shared their e- learning experience through conversation also. The data was then analyzed both quantitatively and qualitatively.

Content Input	Compulsory	Optional
Content Input related to Computer/ICT in secondary teacher education curriculum	100%	Nil

Table 1. Table showing content inputs related to Computer/ICT

Tool of the Study

A self made questionnaire having 14 items has been developed. Items were focused on skills required among teacher educators to use e- learning tools for instructional purpose, training given to trainee teachers to use of computer and conceptual understanding of e-learning. Some of the items were focused on the status of computers and internet facility provided to trainee teachers and teacher educators in the teacher education institutions.

Analysis and Interpretation

The data has been analyzed both quantitatively as well as qualitatively. Keeping in view the objectives of the study, data analysis has been summarized as follows:

Objective 1

To analyze the Secondary Teacher Education Curriculum in terms of content inputs related to Computer/ICT.

From Table 1 it can be interpreted that the content inputs related to computer / ICT in secondary teacher education curriculum was found to be 100%. So it was compulsory in the sample institutions. Content related to computers is implanted as the core paper titled 'ICT Mediated Education' under the secondary teacher education curriculum of GGSIPU.

Status of Wi-Fi campus	Yes	No
Wi-Fi Campus	66.6%	33.3 %

Table 2. Provision of Wi-Fi campus for teacher educators and trainee teachers in teacher education institutions

Computer Systems with internet facility	NONE	1-2	3-4	5-6	7-8
For teacher educators	8.3%	58.3%	16.6%	8.3%	8.3%
No. of Institutes	1	7	2	1	1
Computer Systems with internet facility	1-10	10-20	20-30	30-40	40-50
For trainee teachers	33.3%	8.3%	25%	8.3%	25%
No. of Institutes	4	1	3	1	3

Table 3.Computer facility with internet connections for teacher educators and trainee teachers

Objective 2

To study the provision of internet for teacher educators and trainee teachers in teacher education institutions.

From Table 2 it was revealed that 66.6% that is 8 number of institutes out of 12 and 33.3% institutes that is 4 institutes, have Wi-Fi campus which allows the teacher educators and trainee teachers to access internet facility in their mobile phones and laptops anytime during the working hours of the campus.

Number of computer systems with internet facility for teacher educators

- From Table 3, 8.3% institutes provide nil or 5-6 or 7-8 computer systems with internet facilities to teacher educators.
- 58.3% of institutions have 1-2 computer systems providing internet facility to teacher educators(i.e. maximum number in the given sample).
- 16.6% of institutions have 3-4 computer systems providing internet facility to teacher educators.

It can be interpreted that most of the teacher educators are provided with only 1-2 computer systems having provision of internet. As the ratio of trainee teachers to teacher educators in 10 institutes out of 12 is of 100:7 and two institutes have number of trainee teachers 120 and other 200 and the ratio is 120:7 and 200: 12 respectively. According to this ratio the number of system with internet facility provided is inadequate. This causes the imbalance in the usage of e- learning tools as the teacher educators are not having the resources and they will develop an attitude of non usage of the facility.

Number of computer systems with internet facility for trainee teachers

- From Table 3, 33.3% of institutions have 1-10 computer systems providing internet facility to trainee teachers(i.e.maximum number in the given sample).
- 8.3% of institutions have 10-20 or 30-40 computer systems providing internet facility to trainee teachers.
- 25% of institutions have 20-30 or 40-50 computer systems providing internet facility to trainee teachers.

It can be interpreted that maximum number of institutes

provide only 1-10 systems with internet facilities to trainee teachers. And the approximate computer systems in a computer laboratory of each institute is 40-50 for 50 students at a single time having the provision of internet in 1-10 computer systems maximum. Only 25% of institutes have the provision of internet for all the students. The trainee teachers who are reluctant to use the internet will not be enthusiastic to use it as the students who are using the internet consistently will work more on the computer with internet facility.

From Table 4, it was revealed that -

- 58.3% of institutions provide only 1-2 hours to use internet in the campus.
- 16.6% of institutions provide more than 6 hours to use internet in the campus.
- 8.3% of institutions provide no time to use internet in the campus.
- 16.6% of institutions provide unlimited time whenever students are free in the campus to use the internet.

It can be interpreted that more than 50% of the institutes provide only 1-2 hours to use internet facility by trainee teachers during campus hours and this is mainly during the practical classes of computers. This will act as a barrier to use internet by trainee teachers as during this time duration the teacher educators have been instructing and the maximum usage of the internet can not be implemented.

Objective 3

To study the topics related to basic concepts of computers being taught to trainee teachers by teacher educators.

From Table 5, it was revealed that,

- 100% of teacher educators taught the basic concepts related to knowledge of software application, MS Office and surfing on internet to trainee teachers.
- 66.6% of teacher educators taught the basic concepts related to computer hardware to trainee teachers.
- 16% of teacher educators taught about video editing tools to trainee teachers.
- 8.3% of teacher educators taught about audio editing tool to trainee teachers.
- 25% of teacher educators taught about picture editing tool to trainee teachers.
- 58.3% of teacher educators taught about making and operating educational blogs to trainee teachers.
- 33.3% of teacher educators taught about open source software to trainee teachers.

Time	1-2 hours	3-4 hours	5-6 hours	more	No time	Whenever they are free in campus
Time provided to use internet by students in campus	58.3%	-	-	16.6%	8.3%	16.6%

Table 4. Time provided to use internet by students in campus

Basic concepts of computers taught to students	Yes	No
Knowledge of Software application	100%	None
Computer hardware	66.6%	33.4 %
Microsoft Word	100%	None
Microsoft Excel	100%	None
Microsoft Power Point	100%	None
Video Editing Tool	16%	84%
Audio Editing Tool	8.3%	91.7%
Surfing on internet	100%	None
Picture Editing Tool	25%	75%
Making/Operating Educational Blogs	58.3%	41.7%
Open Source Software	33.3%	66.7%

Table 5. Percentage of basic concepts of computers taught to students

It can be interpreted that most of the teacher educators provide the knowledge of software application, basic MS Office part (i.e. Word, Excel, Power point) and also the knowledge on how to surf on internet to the trainee teachers.

It can also be interpreted that mostly trainee teachers are not trained for concepts like video editing tool, audio editing tool, picture editing tool and open source software. Since these tools are also important as a trainee teacher has to use e- learning tools in future teaching process like for making advanced PPT (Power point) and online classes, they have to be trained for this.

Objective 4

To analyze the e-learning tools usage by teacher educators in teacher education institutions.

From Table 6, it was revealed that-

- 91.6% teacher educators use email as e- learning tool.
- 66.6% teacher educators use chatting and social networking as e- learning tools.
- 33.3% teacher educators use blog as e- learning tool.
- 41.6% teacher educators use discussion groups /forums as e- learning tool.
- 75% teacher educators use slide share as e- learning tool.
- 58.3% teacher educators use you tube as e- learning tool.
- 8.3% teacher educators use twitter as e- learning tool.
- None of the teacher educators use online video conferencing, WizIQ and Moodle as e- learning tool.

It can be interpreted that maximum percentage of teacher educators' use emails as e- learning tool for interacting with the trainee teachers during course commencement and along with that chatting, social networking, slideshare and you tube in the row for various other purposes.

Some percentage of teacher educators are also using blogging, discussion group forums and twitter to a lesser amount. But online video conferencing, WizIQ (online classes) and Moodle were not used by the teacher educators. Even many of the teacher educators are not aware of the terms too. Sarsani (2007) found that there was lack of competent teaching faculty (29%) in terms of ICT and 50% asked for appointment of experienced teaching faculty. Nachimuthu, K. (2010) identified that the awareness and intentions to act regarding e-Learning resources is inadequate for the educationalists and the College of Education lectures were using the physical books handling (86.2) rather than the e-books ind it was also evidenced that, they were not having enough time to use e-books nor to enter in the computer labs. Prasad, S.N. (2005) said that challenges of introducing ICT in the teacher education curricula is that most institutions were unprepared and most of the existing staff members are reluctant to take on the additional responsibilities. The application of Web 2.0 technologies such as instant messaging, wikis, blogs, and online discussion groups were difficult being 'extremely uncommon' with 'a sizeable minority' of primary teachers who are unfamiliar with these types of software and a quarter of secondary teachers never having heard of wikis (Becta, 2008b).

e-learning tools usage by teacher educators	Yes	No
Email	91.6%	8.4%
Chatting	66.6%	33.4%
Blogging	33.3%	66.7%
Online Video conferencing	None	100%
Social Networking	66.6%	33.4%
Discussion Groups/ Forums	41.6%	58.4%
Slide share	75%	25%
You Tube	58.3%	41.7%
Twitter	8.3%	91.7%
WiziQ	None	100%
Moodle	None	100%

Table 6. Percentage of e –learning tools usage by teacher educators

Further it was identified that the various e- learning tools were specifically used by teacher educators.

From Table 7, it was revealed that,

- 83.3% of teacher educators use email for providing content to students.
- 75% of teacher educators use email to accept assignments from students.
- 50% of teacher educators use email to provide assessment and feedback to students.

It can be interpreted that teacher educators use email mostly to provide content or self made notes followed by the use of assignment submission and assessment/ feedback of assignments or lesson plans. Sarsani (2007) found that trainee teachers used Graphical presentation of materials / demonstration of experiments; correspond with expert, authors, students from other schools, etc, via e-mail or Internet; and produce multimedia reports / projects which are 39% each.

Use of email by teacher educators	YES	NO
Providing content	83.3%	16.7%
Accept Assignment	75%	25%
Assessment/Feedback	50%	50%

Table 7. Purpose of email by teacher educators

Use of chatting	Percentage
Discussion of educational problems	58.3 %

Table 8. Purpose of chatting by teacher educators

From Table 8, it can be interpreted that only 58.3% of teacher educators are involved in chatting for discussion of educational problems with trainee teachers. Rest of the time if they have to chat it is for informal kind of discussions. Sarsani found that 18% of trainees used Internet to chat.

From Table 9, it was revealed that 33.3% teacher educators convey the thoughts through blog and 16.6% do discussion through blogs. So it can be interpreted that teacher educators, use blogging for conveying of thoughts more than discussion of some educational problems. This will lead to delimit the usage of blogs by trainee teachers also. Sarsani found that only 4% of teacher educators and trainee teachers were able to create / maintain own web-site.

From Table 10, it can be interpreted that none of the teacher educators use online video conferencing for instructions and discussions with trainee teachers. This is due to lack of time that can be devoted by teacher educators after college hours. Gopal, B.V. & Anandan, K. (2013) found that 16% of B.Ed. students are aware of this features of video conferencing component and tend to utilize them in their Classroom Instruction.

From Table 11, it can be interpreted that only 33.3% of teacher educators use social networking for sharing information related to course through the educational groups made on these websites. Remaining percentage is for tasks like posting images, quotes, chatting etc. for personal interest as a leisure time activity. Marshall *et al., (*2009),clearly said that the use of web 2.0 technologies to support teaching and learning is stronger in the secondary sector. The extent of use is still low for the use of social networking is much lower – 2% and 6% respectively.

Use of blogging	Percentage
Convey of thoughts	33.3%
Discussion	16.6%

Table 9. Purpose of blogging by teacher educators

Online Video conferencing	Percentage
For seminars	Nil
Monitoring and facilitating	Nil
Discussing problems while Practice teaching	Nil

Table 10. Purpose of online video conferencing by teacher educators

Social Networking	Percentage
For making Educational Groups and sharing Information related to the course	33.3%

Table 11. Purpose of Social Networking by teacher educators

From Table 12, it was revealed that-

- 41.6% of teacher educators exchange ideas through discussion groups/ forums.
- 33.3% of teacher educators provide information through discussion groups/ forums.
- 16.6% of teacher educators share experiences through discussion groups/ forums.
- 25% of teacher educators ask questions through discussion groups/ forums.

It can be interpreted that discussion forums were mainly used to exchange ideas with trainee teachers and that is followed by the use of information, experiences and asking the questions. The usage of discussion forums is still less as compared to the usage of e mails.

From Table 13, it can be interpreted that 66.6% of teacher educators download PPT rather than 16.6% of them upload their own presentations. The reason for this can be the presentations were not made by teacher educators. Sarsani found that trainee teachers mostly used Internet for downloading model lesson plans / gather information for planning lessons (50%).

From Table 14, it was revealed that-

Discussion Groups/ Forums	Percentage
Exchange ideas	41.6%
Information	33.3%
Experiences	16.6%
Asking questions	25%

Table 12. Purpose of Discussion groups by teacher educators

Slide share	Percentage
Downloading PPT	66.6%
Uploading PPT	16.6%

Table 13. Purpose of Slide share by teacher educators

You Tube	Percentage
Downloading Videos	66.6%
Uploading Videos	8.3%
Uploading Lectures	Nil

Table 14. Purpose of You Tube by teacher educators

- 66.6% teacher educators download videos from you tube.
- 8.3% teacher educators upload videos on you tube.
- None of the teacher educators upload lectures on you tube.

It can be interpreted that teacher educators used to download the videos more than uploading their own prepared videos through youtube similar in the case of power point presentation. This can be due to the inability to prepare a video or recording the lectures due to non availability of resources in college.

From Table 15, it can be interpreted that none of the teacher educators are using twitter for any kind of purpose.

From Table 16, it can be interpreted that none of the teacher educators till now have used WizIQ for the purpose of online classes.

From Table 17, it can be interpreted that none of the teacher educators have used Moodle for creating any type of online course.

Objective 5

To study the educational purpose for which trainee teachers are encouraged to use e- learning tools.

Twitter	Percentage
For class discussions	Nil
Class reminders	Nil
Academic and personal support	Nil
To connect with each other and mentors	Nil

Table 15. Purpose of Twitter by teacher educators

WizIQ	Percentage
Online classes	Nil

Table 16.Purpose of WizIQ by teacher educators

Moodle	Percentage
Creating a online course	Nil

Table 17. Table showing purpose of Moodle by teacher educators

Purpose for which trainee teachers are encouraged to use e- learning tools during the course	Yes	No
For downloading Educational Videos (eg You tube Edu, Edutube)	91.6%	8.4%
For preparing advanced PPT	75%	25%
For searching information at Wiki educator	75%	25%
For online videoconferencing	8.3%	91.7%
For attending online classes (eg.WizIQ)	25%	75%
For blogging (eg. Edublogs)	33.3%	66.7%
For assignments submission(through email)	83.3%	16.7%
For Group Discussions/Discussion forums	33.3%	66.7%
For making technology integrated lesson plans	100%	None
For sharing teaching problems through social networking websites while practice teaching with teachers and peers	75%	25%
Twitter(for discussion)	16.6%	83.4%

Table18. Purpose for which trainee teachers are encouraged to use e- learning tools during the course

From Table 18, it was revealed that-

- 91.6% of trainee teachers are encouraged to download educational videos.
- 75% of trainee teachers are encouraged to prepare advanced PPT, searching information at wiki educator and sharing teaching problems through social networking websites while practicing teaching with teachers and peers.
- 8.3% of trainee teachers are encouraged to use online video conferencing.
- 25% of trainee teachers are encouraged to attending online classes (eg.WizIQ).
- 33.3% of trainee teachers are encouraged to use Group Discussions/Discussion forums.
- 100% of trainee teachers are encouraged to make technology integrated lesson plans.
- 16.6% of trainee teachers are encouraged to use Twitter for discussion.

It can be interpreted that trainee teachers are encouraged by teacher educators to use various e- learning tools as downloading educational videos, preparing advanced PPT, searching information on Wiki educator, assignment submission through e- mail, making technology integrated lesson plans and sharing teaching problems through social networking websites. Among those tools, several tools are there like online videoconferencing, online classes, blogging, group discussion and twitter which are not encouraged. This can be because, of these tools are not used by the teacher educators themselves and this will not

encourage the trainee teachers to use them.

Objective 6

To study the degree of usage of technology by trainee teachers during practice teaching.

From Table 19, it was revealed that-

- 83.3% trainee teachers make separate lesson plans from PPT during the phase of practice teaching.
- 41.6% trainee teachers make e- lesson plans during the phase of practice teaching.
- 75% trainee teachers make use of Edu comp classes and Smart board/ interactive white board during the phase of practice teaching.

It can be interpreted that trainee teachers are making separate lesson plans through power point presentation as it is the component of their syllabus now. And due to availability of smart classes in the school where trainee teachers went for practice they have to use 'Edu comp' classes and smart board too for teaching.

Outcomes of the Study

The study was done to prepare the status of teacher education institutes in terms of availability and usage of e-learning tools by teacher educators and trainee teachers. Several objectives were framed to fulfill the major objective of the study. After the analysis of the collected data and interpretation following outcomes have been derived.

- The content input related to ICT/ Computers in secondary teacher education curriculum of the GGSIP University is compulsory. And along with this the ICT component is also integrated in various Pedagogical subjects and also the elective subject educational technology.
- It was analysed that almost all the selected institutes have Wi-Fi campus. This makes the use of various mobile applications also in teaching learning process like instant messaging through e- mails and social groups formed.
- Varying numbers of computer systems with the provision of internet is provided to teacher educators in different institutes. In most of the institutes only 1 or 2 systems are there for them to use internet facility. Now in the staff of minimum 6, 1-2 systems are less and all the teacher educators cannot work on the system when required.
- For trainee teachers the number of systems with provision of internet is 1-10 for a class of 50 students approximately. This is also not fair distribution of the systems. Many institutes have less than fifty systems in a computer laboratory and two students share a single system. And besides this the internet is not provided especially when the students have to prepare advanced PPT, to search some information on internet etc. Even many of the students are not aware of internet facilities. Many institutes provide facility in all the systems.
- Time provided to trainee teachers for the usage of internet facility during the campus hours also varies among the institutes. Most of the institutes provide only 1-2 hours in a week and usually when the topic of internet is being taught by the teacher educators. Some institutes allow trainee teachers to use internet whenever they are free in the college campus. Even some institutes don't allow students to use internet in college campus.
- Topics related to basic concepts about computers which were taught to trainee teachers comprised of MS Office, software application and surfing on internet. But to implement e-learning tools successfully in teaching learning process the students are required to use video, audio and picture editing tools. Beside this the knowledge of open source software has also its own importance. Curriculum of most of the universities hasn't comprise of those topics and even many teacher educators are not aware of those things. Some trainee teachers having background of computers know the use of these tools and they implement it in much better

During the phase of Practice teaching trainee teachers use technology for Preparing/delivering Lesson Plans	YES	NO
Separate Lesson Plans from Power Point Presentation	83.3%	16.7%
e- lesson plan	41.6%	58.4%
Edu -Comp Classes	75%	25%
Smart Board/ Interactive White Board	75%	25%

Table 19. Degree of usage of technology by trainee teachers during practice teaching

way by making advanced PPT.

- Trainee teachers are encouraged to use internet mainly for email and downloading educational videos. And among those some of the activities are done because of constraint of curriculum like making technology integrated lesson plan, which is the part of curriculum so every trainee teacher has to do it. But there are certain activities like blogging, twitter, online video conferencing and online classes which are not encouraged too much. Teacher educators don't encourage those kinds of activities as they are not acquiring this knowledge, skills and time after college hours.
- Presently teacher educators are using many e-learning tools and among them email usage is the most. They send their notes, accept assignments and provide feedback through it. Beside this the use of slide share and you tube was done to download presentation and videos respectively. But the use of video conferencing, online classes through WizIQ and Moodle (online courses) is nil and none of the teacher educators are using it. This is because of lack of knowledge and time. Other tools like chatting, social networking, group discussion and blogging are being used in less percentage and that was not completely for educational purpose.
- The use of technology during the practice of teaching phase was done in the form of delivering lesson plans through PPT, smart board and edu comp classes. Since many of the trainee teachers are not trained for those things but they are somehow forced to do this. The reason is that PPT is now a part of curriculum and many of the institutes among the sample (i.e. more than 50%) have no provision of smart board and none of the institutes have provision of edu comp classes.

Suggestions

- Tablets and smart phone facilities can be provided to teacher educators so that maximum benefits of Wi-Fi campus can be utilised.
- There should be more number of systems having internet facility provided to teacher educators and trainee teachers.
- Trainee teachers should be allowed to use internet facility in the campus when they are free.
- There should be proper training of teacher educators regarding the softwares coming up in the market and how they are used in education.
- Some of the tools which can enhance the future learning is online conferencing, twitter etc. for which they have to be oriented.
- Teacher educators should be motivated to upload their content on internet where the sharing of information can be much beneficial. They should be encouraged to be the part of open educational resources as wiki educator.
- They can create their own courses at moodle and can help students a lot.
- Teacher educator should encourage trainee teachers for the usage of new tools that can be used in teaching learning process. Trainee teachers were encouraged to use some tools such as e mail, chatting, preparing advanced PPT, group discussions, social networking and downloading presentations.

Conclusion

Finally this research has a finding that besides the component of ICT being an important part of GGSIP University teacher education curriculum, but still the actual scenario in terms of usage of e- learning tools is different. Many basic concepts about computers are part of curriculum as the computers are placed as a compulsory subject in it but the topics related to internet usage has to be modified. There is lot of variation in the resources provided by various teacher education institutes for e-learning usage. Along with this the perception and skills of teacher educators also varies a lot. And this can influence the usage of e-learning in trainee teachers also. In present scenario the educationists should be trained for the concept of e- learning as it is important part of every work professionally and personally. Especially when the system is ready to develop online courses and many are running to. There are lot of courses which can be developed through Moodle, and content should be developed through Open Educational Resources (OER) and good research work can

also be done through online mode. And the era of social networking plays a most important part to exchange innovations and information. The proper use of e -learning tools by trainee teachers and teacher educators should be enhanced by supporting them with the appropriate facilities in the campus in terms of resources and training. Then only they can prepare the future teachers to be competitive in this global world.

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