



A Study of Teacher Educator Practices in Information and Communication Technology (ICT) Based Curriculum Transaction.

Shaheen Altaf Shaikh
H.G.M. Azam College of Education
Pune

Smita Phatak
Tilak College of Education
Pune

Abstract

The challenge is to use ICT in teaching learning judiciously and effectively and if this is to happen then the change has to begin from the roots of education i.e., the teacher education system. The present research attempts to find out how the teacher educators are using ICT in their classrooms. The objectives were to analyze the ICT based curriculum transaction practices by teacher educators, to identify lacunae in ICT based curriculum transaction practices by teacher educators and to suggest improvements to the ICT based curriculum transaction practices by teacher educators. The results show that there is no uniformity or specific format or design or model which is used for curriculum transaction of an ICT based session. No criteria are used by teacher educators for selection of ICT tool for the ICT based session. Teacher educators do not consider the benefits of using specific ICT resources to the teaching learning process. Teacher educators do not use interactive ICT tools. Teacher educators do not use group work/ pair work during an ICT based session. Teacher educators use only questions as assessment tools.

Key Words:- Teacher Educator, ICT, Curriculum Transtion

1. Introduction

The 21st century heralds a significant change in society. This change is the permeation of information and communication technology (ICT) into all walks of life,

business, administration, government, education...(Stevenson, 1997). The rapid proliferation of information and communication technologies (ICT) has significantly changed the educational landscape globally. ICT is developing at a rapid rate and one of the characteristics of ICT is its dynamism. It is difficult to set limits to what ICT can achieve as it is a constantly shifting frontier.

1.1 ICT and Education

Enhancing educational quality is a constant process and is top priority. Education systems work to prepare the next generation for a successful future in a changing world, the knowledge economy of 21st century. One of the greatest challenges which needs to be overcome on our way to the 21st century is to enable teachers and students to achieve competency and mastery in the use of technology. There is inundation of information because of developments in technology, leading to profound effects on education. Technology and the use of computers within or outside the classroom is not to be viewed as a fad or a cure-all. As educational institutions move towards the mainstream use of ICT in teaching and learning there appear to be some critical steps and vital ingredients needed for the successful infusion of ICT into educational environments.

1.2 ICT and Pedagogy

Although standalone computers have been in most educational institutions for more than two decades now, teachers continue to grapple with how to use ICT to enhance teaching and learning environments. There has been a growing recognition that technology used in the absence of a sound theoretical framework or pedagogy is generally not very effective in reaching programme goals. Laurillard (2002); Mishra and Koehler (2006) and Unwin (2007), for example, have cautioned against the use of ICTs without a conceptual framework or without a clear understanding of why and how the ICT will contribute to students' learning. ICTs provide an array of powerful tools that may induce the transformation of the present isolated, teacher-centered and text-bound classrooms into rich, student focused, interactive knowledge environments Oblinger and Rush,(1997).

3. Importance of the Research

It is strongly believed that our teachers need to be trained in pedagogy based approaches to technology. They need to have hands-on experiences with technological tools that advance their own studies and educational and professional goals, as well as develop skills to be able to design appropriate learning activities for their students. The challenge is to use ICT in teaching learning judiciously and effectively and if this is to happen then the change has to begin from the roots of education i.e., the teacher education system. The present research attempts to find out how the teacher educators are using ICT in their classrooms.

4. Operational Definitions

Teacher Educators – Teachers teaching in the B.Ed. course.

Practices - Practices of teacher educators in ICT based sessions studied are as follows: Use, Preparation and Planning, Selection of ICT Resource, Practice in the ICT based session, Evaluation, Opinion.

ICT based Curriculum Transaction - An inclusive phrase to mean the organization of the teaching, learning, assessment, evaluation and reflection of the sessions using ICT for the theory component of the B.Ed. course of University of Pune.

5. Objectives of the Research

1. To analyze the ICT based curriculum transaction practices by teacher educators.
2. To identify lacunae in ICT based curriculum transaction practices by teacher educators.
3. To suggest improvements to the ICT based curriculum transaction practices by teacher educators.

6. Scope of Research

- The study covers teacher educators teaching in B.Ed. in colleges of education, University of Pune.
- The study relates to the curriculum transaction of theory component of B.Ed. course of University of Pune.

7. Significance of the Study

This study identifies teacher educator practices in an ICT-rich learning environment. In doing so, it is expected that educational leaders, nationally and internationally, can better formulate strategies for developing ICT embedded curricula that support learning from a holistic approach. The findings of this study are expected also to contribute to theoretical and methodological knowledge and give clear and useful advice and support relating to effective curriculum transaction through integration of information and communication technologies.

8. Method of Research

Survey Research - An analysis of the ICT based curriculum transaction practices by teacher educators in colleges of education has been done using survey research. The survey is a non-experimental, descriptive research method.

9. Tool of Research

Questionnaire - A questionnaire was used to analyse ICT based curriculum transaction practices by teacher educators in colleges of education.

After review and due consultation with experts the 6 aspects which needed to be studied about current practices of teacher educators in ICT based sessions were finalized.

Table 1

Aspects of the Questionnaire to Assess ICT Practices by Teacher Educators.

S.No.	Aspects	No. of questions
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1.	Use	2
2.	Preparation and Planning	5
3.	Selection of ICT Resource	2
4.	Practice in the ICT based session	7
5.	Evaluation	2
6.	Your Opinion	2
	Total	20

- **Use** – By means of these questions, the information found was related to the use of ICT by teacher educators in terms of number of sessions conducted and the tools used by teacher educators. These answers will become of great help in order to know more accurately about the frequency of usage of ICT, and could help us to obtain an idea of which functions are more or less used by them.
- **Preparation and planning** - The answers to this section will account to acquire an accurate idea of the practices and procedures used in referencing, preparing and planning for conducting an ICT session. The answers will help in providing a direction to the development and formulation of an ICT based model of curriculum transaction.
- **Selection of ICT resource** – The questions helped in obtaining fundamental information that teacher educators have of ICT tools and resources and their justification, pedagogical based use of ICT, thus, the information gathered on the one hand helped to perceive the degree of competence that teachers have in relation to the selection of ICT tools and resources and on the other to know of the justification they make of the different ICT-based tools and which are the functions which are used the most.
- **Practice in ICT based session** - The answers to this section will shed light on the practices, procedures, assessments and roles of teacher educators and teacher trainees currently used for conducting an ICT session. The answers will help in providing a

direction to the modeling of objectives, techniques, and procedures in an ICT based model of curriculum transaction.

- **Evaluation** – This section aims to assess the evaluation procedures currently in use by teacher educators and thus provide a direction to ideal evaluation procedures which can be incorporated in the curriculum transaction of an ICT based session.
- **Your opinion** - This final part is directly linked to one of the main points of interest of our research: on the one hand to assess the knowledge those teacher educators have of their previous ICT practices, their appraisal and opinion will shed some light to many questions. On the other hand teachers are asked about specific needs in the transaction of an ICT based session. In the end there is an open part in which teacher educators can suggest and propose requirements in an ICT based session.

10. Population

All teacher educators teaching in colleges of education of University of Pune.

11. Sample

A sample of 50 teacher educators was selected using incidental sampling. 50 teacher educators were selected from 30 different colleges of education out of a total of 96 colleges of education. Approximately 1/3 of the colleges were covered and so it can be considered as a fairly good representative sample.

12. Data Collection

The questionnaire was distributed to the teacher educators on a one to one basis and filled in front of the researcher to avoid any confusion and to get honest answers.

13. Data Analysis Tools

The data obtained was treated with percentage analysis for the quantitative data and listing of responses was done for qualitative data.

14. Findings and Conclusions of the Research

Criteria 1 - Use :

- 68% of teacher educators conduct 2 ICT based sessions in a year. 24% of teacher educators conduct 4 ICT based sessions in a year and 8% of teacher educators conduct >4 ICT based sessions in a year.
- 100% of teacher educators use PPT and OHP Transparencies as ICT tools. 8% of teacher educators use internet as an ICT tool.

In general teacher educators conduct very few ICT based sessions. The most commonly used ICT tools are PPT and OHP transparencies. Very few teacher educators use internet as an ICT tool.

Criteria 2- Preparation and Planning:

- 100% of teacher educators use reference books and internet for reference of content for the ICT based session.
- 16% of teacher educators make a record of the references used for the ICT based session. 84% of Teacher educators do not make a record of the references used for the ICT based session.
- 100% of Teacher educators do not determine authenticity of the source while referring information from the internet.
- 8% of Teacher educators prepare a session plan for conducting the ICT based session. 92 % of Teacher educators do not prepare a session plan for conducting the ICT based session.
- 100% Teacher educators do not separately list the objectives achieved through ICT while conducting the ICT based session.

Reference books and internet are used commonly by teacher educators for reference in an ICT based session. In general teacher educators do not make a record of the references used for the ICT based session. Teacher educators do not determine authenticity of the source while referring information from the internet. In general teacher educators do not prepare a session plan for conducting the ICT based session. Teacher Educators do not separately list the objectives achieved through ICT while conducting the ICT based session.

Criteria 3 - Selection of ICT Resource:

- 100% teacher educators do not use any criteria for selection of ICT tool for the ICT based session.
- 100% teacher educators do not consider the benefits of using specific ICT resources to the teaching learning process.

No criteria are used by teacher educators for selection of ICT tool for the ICT based session. Teacher educators do not consider the benefits of using specific ICT resources to the teaching learning process.

Criteria 4 - Practice in the ICT based session:

- 72% teacher educators make use of ICT at one stage only in the session. 18% teacher educators make use of ICT at one stage only in the session. 10% teacher educators make use of ICT at one stage only in the session.
- 48% teacher educators make use of ICT for generating active participation of teacher trainees. 52% teacher educators do not make use of ICT for generating active participation of teacher trainees.
- 100% teacher educators do not use interactive ICT tools.
- 100% teacher educators do not use group work/ pair work during an ICT based session.
- 100% teacher educators integrate assessments into the ICT based session by asking questions.
- 100% teacher educators play an active role in an ICT based session.
- 56% teacher trainees play an active role in an ICT based session but the activity is answering questions only. 44% teacher trainees play a passive role in an ICT based session.

In general teacher educators make use of ICT at one stage only during an ICT based session. In general use of ICT does not generate active participation of teacher trainees. Teacher educators do not use interactive ICT tools. Teacher educators do not use group work/ pair work during an ICT based session. Teacher educators use only questions as assessment tools. Teacher educators play an active role in an ICT based session.

Involvement of the teacher trainees in an ICT based session conducted by the teacher educator was mostly passive except for answering of questions.

Criteria 5 – Evaluation:

- 100% teacher educators evaluate the ICT based session through self evaluation. The factors considered in the evaluation - No specific criteria or format is used by the teacher educators in evaluation of the ICT based sessions conducted by them. It is a general overall evaluation of the quality of the session like excellent, good, fair, poor.

Criteria 6 - Your Opinion:

- 100% teacher educators are not satisfied with the way in which the ICT based sessions are conducted.
- There is no uniformity or specific format or design or model which is used for curriculum transaction of an ICT based session

15. Suggestions

- For planning a separate lesson plan format should be used for an ICT based session.
- Selection of ICT resource should be done judiciously and variety of ICT resources should be used.
- Teacher's role should be as a guide and facilitator.
- Teacher trainee's role should be as active participants.
- Assessments are essential.
- Evaluation is essential.

18. References

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