

A Study on the Effectiveness of Integrating Ict in Schools

Upasana Saikia (Lecturer)

DIET, KAMRUP, ASSAM.

Abstract

One of the most revolutionary policy of the 21st century education is the New Education Policy (NEP)2020 that was drafted (revised) in 2019 and approved by the Union Cabinet of India on 29 July 2020. One important aspect that the policy has focused on is the integration of ICT in aiding teachers, bridging the language barrier and facilitating a platform based on technology for teacher training. ICT integration in schools, specifically in the classroom, is vital. Teachers of the genesis therefore have to adopt technology-based training for making learning dynamic, interactive and engaging. New technologies have provided new possibilities for the teaching profession. To cope up with the intellectual technologies ICT is the need of the hour. The present paper therefore focuses on the importance of ICT in teacher education institutions and the application of ICT in the classroom transaction. (in-service teachers).

Keywords: *ICT, Teacher Education, Teacher Trainees, In- Service, Pre-Service.*

Introduction

The twenty-first century is the time of science and technology, and the world has transformed into an information-intensive society. The integration of ICT in classroom is getting more important as it helps students to enhance their collaborative learning skills as well as develop attitudes that stimulate social skills, problem solving, self-reliance, responsibility and the capacity for reflection and initiative. Teacher Education is vital in creating a pool of school teachers according to the changing needs of the society. But creating such teachers is also one of the biggest challenges today. The quality of teacher education programme needs to be up graded. Teacher education programme also needs to be revised according to changing needs of society. To bring reforms, ICT integration has been found to be effective for both teachers and students. It is of the fact that students are familiar with technology and they will learn better within technology-based environment, specifically in the classroom. The use of technology in education contributes a lot in the pedagogical aspects in which the application of ICT will lead to effective learning with the help and supports from ICT elements and components (Jamieson-Procter et al., 2013). Teachers of the genesis therefore have to adopt technology-based training for making learning dynamic, interactive and engaging. The pre-service and in-service programmes should be aimed to train prospective teachers to use ICT competently and making teaching learning process joyful.

Operational Definitions Of The Terms:

ICT: Information and Communication Technology. It is the use of computing and telecommunication technologies, to facilitate information and make human and machine communication easier and more efficient.

Teacher Education: Teacher Education is a programme of education, research and training (pre-service) and (in-service) of persons to teach from pre-primary to higher education level.

Teacher Trainees: A person who is learning and practicing the skills of teaching formally through a prescribed course.

In- Service: To train or educate someone while they are working, to give “on-the-job” training.

Pre- Service: “Pre- Service” refers to activities which takes place before a person enters service which requires specific training

B.Ed: Bachelor of Education. B.Ed is an educational degree course for learners wishing to pursue their teaching careers and related disciplines.

Guwahati: A place in the north-eastern state of Assam.

Need And Significance Of Ict In Teacher Education

Technology has become the knowledge transfer highway in almost all domains of our life. Technology integration nowadays has gone through innovations and transformed our societies that has totally changed the way people think, work and live (Grabe, 2007). ICT in Education is a new paradigm and has a lot of applications in the process of teaching and learning. The challenge in India today is the lack of availability of teachers who are ICT competent. Moreover, there are various constraints that teachers have to face to make themselves competent. The trained teachers face difficulties like shortage of ICT trained qualified teacher educators, weak curricula, lack of ICT equipment etc. In order to identify the constraints and possibilities in the use of ICT in the teaching profession, the investigator felt the need of the study.

Objective Of The Study:

- (a) To compare the level of awareness about ICT among the male and female in - service trainees.
- (b) To study the use of ICT in the classroom transaction.
- (c) To enhance the skills of using ICT in the classroom transaction.

Hypothesis Of The Study:

Keeping in view of the objectives, the following hypothesis was formulated for the present study:

There is no significant difference between the awareness level regarding ICT among male and female in-service teacher trainees.

Delimitation Of The Present Study:

The study is delimited to only 60 deputed teacher trainees of Government B.Ed College affiliated to Gauhati University, Kamrup (Rural) Assam. The teachers have been working in various elementary and secondary schools of Kamrup (Rural) district. The results of the study were based on responses given by teachers on the self- constructed questionnaire prepared by the researcher.

Methodology:

Descriptive survey Method has been used for the purpose of the study. A random sample of 60 teacher trainees were selected for the present study of which 30 were male and 30 were female.

Tools Used For The Present Study:

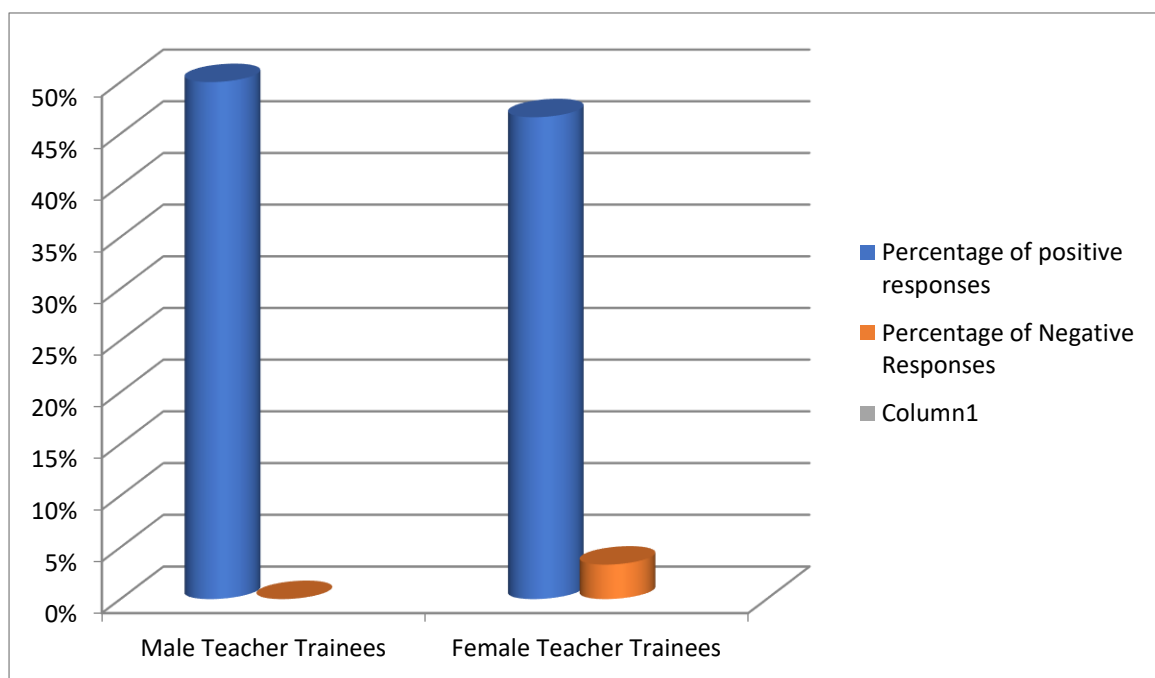
- (a) *Self Constructed Questionnaire*: A questionnaire consists of a series of questions for the purpose of gathering information from respondents. Questionnaire can be open- ended and closed- ended. For the purpose of the study only close ended questionnaire has been taken.
- (b) *Interview*: Interview is a method of collecting data that involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. For the purpose of the study an unstructured interview has been conducted.

Sample For The Present Study:

For the purpose of the study, the total number of respondents was 60 (30 male) and (30 female) in-service trainees teaching in elementary and secondary schools. For the purpose of the study only two Government B.ed Colleges affiliated to Gauhati University has been taken.

Analysis And Interpretation Of Data:**TABLE NO 1: Comparision of scores on level of awareness of use of ICT in teaching.**

Variables	Number (N)	Responses (Yes)	Responses (No)	Percentage of positive responses	Percentage of Negative Responses
Male Teacher Trainees	30	30	0	50%	0
Female Teacher Trainees	30	28	2	46.6%	3.33%

Figure No.1:**Interpretation Of Data:**

From the above table it is observed that all male trainees that is 50% of them are aware about the use of ICT in teaching and 46.6% of the female trainees are also aware of the use of ICT in teaching and a mere 3.33% of the female trainees are not aware of the use of ICT.

TABLE NO.2: Use of ICT in the teaching learning process

Sl. No	Questions	Positive Responses (Percentage)		Negative Responses (Percentage)	
		Male	Female	Male	Female
1.	Which method of teaching is more convenient for u? (a) Lecture /Demonstration (b) ICT integrated teaching	Lecture Method-26(86.6%)	Lecture Method-28(93.3%)	ICT integrated-4(13.33%)	ICT integrated-2(6.66%)

2.	Do you have adequate provision of integrating ICT in your classrooms	13(43.33%)	15(50%)	17(56.6%)	15(50%)
3.	Do you think integrating ICT is a waste of time?(Yes/No)	7(23.33%)	14(46.66%)	23(76.66%)	16(53.33%)
4.	Do you think students learn more effectively when you use ICT in the classroom? (Yes/No)	23(76.66%)	18(60%)	7(23.33%)	12(40%)
5.	Do you have your own email id?(Yes/No)	26(86.6%)	20(66.6%)	4(13.33%)	10(33.33%)
6.	Do you use educational apps for teaching in the classroom?	23(76.66%)	14(46.66%)	7(23.33%)	16(53.33%)
7.	Do you find it easy in learning new computer skills?	21(70%)	16(53.33%)	9(30%)	14(46.66%)
8.	Do you know how to make slides for power point presentation	26(86.6%)	15(50%)	4(13.33%)	15(50%)

Analysis Of The Data: From the above table it has been observed that-

1. 86.6% of the male teachers are more convenient to teach using the lecture/ demonstration method while only a mere 13.33% prefer using ICT integrated teaching. On the otherhand, majority of the female teachers i.e. 93.3% still find it easier to teach in lecture method and only 6% prefer to teach using ICT.
2. With regard to the provision of ICT, 43.33% of the male teachers said that they have the provision of integrating ICT in the classrooms and 50% of the female teachers also have the provision of integrating ICT in their classrooms.
3. 23.33% of the male teachers still think that integrating ICT in the classrooms is a waste of time and similarly 46.66% of the female teachers also think the same.
4. 76.66% of the male teachers also think that students learn more effectively when they use ICT in the classroom and 60% of the female teachers think that integrating ICT in the classroom can make learning effective.
5. 13.33% of the male teachers still do not have their email-id and 33.33% of the female teachers also do not have their email-id.
6. 76.66% of the male teachers use educational apps while teaching and 46.66% of the female teachers use educational apps while teaching in the classroom.
7. 30% of the male teachers do not find it easy in learning new computer skills and 46.66% of the female teachers also do not find it easy in learning new computer skills.
8. 13.33% of the male teachers do not know how to make slides for a power point presentation and on the other hand 50% of the female teachers still do not know to make slides in a power point presentation.

Suggestions And Recommendations

1. The government should provide financial assistance to the schools to buy ICT equipment.
2. Introduction of uniform ICT based curriculum in all states/Districts with proper computer labs and internet facility.
3. ICT based practice lesson books and activities with special instructions for the teachers should be developed.
4. Providing foundation course that focuses hands-on ICT experience both at the pre-service training and in-service training institutes.
5. Integrate ICT in all subject areas such as Maths, Science, Environmental Science, Social Science, English etc. so that students learn better and have a positive attitude towards ICT integrated learning.

Conclusion:

The greatest challenge today in the teacher education institutions is preparing a new generation teachers to effectively use learning tools in their teaching process. A well designed teacher training program is therefore essential to meet the demands of the teachers focusing on the different teacher training approaches. It is therefore important that the policy makers understand the different approaches of ICT so that the training strategies can be appropriately explored to make changes viable to all.

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