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Review of Literature

EFFECT OF ICT ON COMPETENCY STUDENT TEACHERS OF B.ED. COURSE OF GULBARGA UNIVERSITY

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ABSTRACT

In the modern age, information and communication technology has influenced all aspects of human life. Teacher education has also been influenced by the ICT. Now ICT has become an integral part of our lives. Over the past twenty five years, the use of ICT has fundamentally changed the practices and procedures in the field of banking, tourism, share market, engineering, business, and post office. ICT is one of the major contemporary factors shaping the global economy and producing rapid changes in society.

KEYWORDS :modern age, information and communication technology , field of banking, tourism, share market.

1.INTRODUCTION :

ICT is a powerful tool for problem solving, conceptual development and critical thinking that helps to make the learning process much easier for the teacher trainees. Owing to knowledge explosion and tremendously fast changing ICT, the teachers sometimes find it rather difficult to cope with the new intellectual challenges being thrown up by the changed global and local context. Therefore, updating the knowledge of ICT is the need of the hour. Even though teachers may have mastered the traditional pedagogies in teaching their students, the changing world dictates that these are no longer sufficient. The teacher educators must acquire new knowledge of ICT before they can prepare their teacher trainees to meet the demands and challenges of the 21st century.

2. COMPUTER COMPETENCY:

The build of Competency has risen as a focal aspect of social subjective hypothesis. Social subjective hypothesis places that conduct is best comprehended as far as "triadic correspondence"

(Bandura, 1986) where conduct, insight and the earth exist in an equal relationship and in this way impact are resolved, as it were, by each other. Bandura (1986) characterizes Competency as: People's judgments of their abilities to sort out and execute game-plans required to accomplish assigned sorts of exhibitions. It is concerned not with the aptitudes one has but rather with judgments of what one can do with whatever abilities one has (Bandura, 1986).

This definition features a key part of the Competency build. In particular, it shows the significance of recognizing segment aptitudes and the capacity to "arrange and execute game-plans." For instance, in talking about driving self-viability, Bandura (1986) recognizes the segment abilities (guiding, braking, flagging) and the practices one can finish (driving in interstate activity, exploring turning mountain streets). Correspondingly, Collins (1985 in Compeau and Higgins, 1995) recognizes the segment aptitudes of science (selection of operations and essential number juggling abilities) and arithmetic practices (taking care of specific word issues). Accordingly, PC Competency speaks to a person's view of his or her capacity to utilize PCs in the achievement of an errand (i. e., utilizing a product bundle for information examination, composing a mail combine letter utilizing a word processor), as opposed to reflecting straightforward segment abilities (i.e., arranging diskettes, booting up a PC, utilizing a particular programming highlight, for example, "bolding " or "evolving edges") (Compeau and Higgins, 1995).

Competency convictions have more than once been accounted for as a main consideration in understanding the recurrence and accomplishment with which people utilize PCs. Campeau and Higgins (1995) tried a few speculations identified with a theoretical straight model of PC utilize in view of social psychological hypothesis. In their examination, people with high Competency utilized PCs more, delighted in utilizing them progressively and experienced less PC related uneasiness. Level of delight and tension levels were additionally recognized as noteworthy factors in PC utilize. The significance of Competency in clarifying PC utilize was additionally exhibited by Hill, Smith and Mann (1987) who found that PC Competency convictions influenced whether people utilized PCs independent of their convictions about the benefit of doing as such. Numerous different examinations likewise have demonstrated that Computer Competency is a factor impacting a person's PC competency.

3. RATIONALE OF THE STUDY:

With National council of Teacher Education (NCTE) making Computer Education component of teacher education, the Gulbarga University introduced Information Communication and Technology as a component of B.Ed. programme by introducing a compulsory paper 'Computer Education' in the academic year 2005-06. The University collaborated with INTEL in the issues of training teacher educators and providing learning material for the student teachers. It is in this context, need of a study which explores the effectiveness of the computer education course of B.Ed. programme was felt.

4. OBJECTIVES OF THE STUDY:

Following were the objectives of the study:

a. To study the effect of ICT course on computer Competency of student teachers

b. To compare the ICT Competency of the male and female student teachers.

5. METHODOLOGY:

This is a descriptive study in which survey method is employed to study the effect of ICT course of B.Ed. programme on ICT Competency of student teachers.

6. SAMPLING:

Sample of this study were student teachers of the B.Ed. colleges affiliated to Gulbarga University It has 64 B.Ed. colleges under its jurisdiction. Among these B.Ed. colleges, 18 were selected randomly for the present study. From each of these selected colleges, 50 student teachers, 25 from Science background and 25 from Social science background, were randomly selected. Though the intended student teacher sample size was 400, since the number of student teachers with science background was less than 25 and due to few absentees during the post test administration, the actual sample size of the student teachers was 325.

7. INSTRUMENTATION:

Student teachers' ICT Competency scale was developed for the purpose of the study. The tool in Likert five point scale, with 23 items was found to have desirable content validity ratio (Lawshe, 1975) and discrimination index. Satisfactory level of test-retest reliability index (0.94) was found.

8. DATA ANALYSIS, INTERPRETATION:

The computer efficacy scale administered to the student teachers at two stages had 25 items. It has a five point scale from 0 to 5, with the highest possible total score 125. To study the effect of the computer education course on computer Competency of student teachers, following null hypothesis was formulated.

1.Ho: There is no significant difference between mean pre-test and post-test scores in ICT competency of the student teachers.

The following table shows the results of the paired t-test conducted on pre and post test scores of ICT Competency.

Table 1: Results of paired t-test between pre and post ICT Competency scores:

Test	Mean	Std. Deviation	t
Post-test	80.02	17.68	8.75*
Pre-test	35.42	23.65	

* Significant at 0.05 level

The table reveals that the 't' value obtained is significant at 0.05 level. Hence the null hypothesis, that there is no significant difference between mean pre-test and post-test scores in ICT Competency of the student teachers, was rejected. This means, Computer Education course of B.Ed. programme is effective in bringing about changes in the computer Competency of the student teachers.

2. Ho: There is no significant difference between adjusted mean scores in ICT Competency of male and female student teachers when their pre-computer Competency is taken as a covariate

To test this hypothesis, analysis of covariance technique was employed. Following table gives the results of ANCOVA.

Table- 3
ANCOVA results of computer Competency of male and female student teachers with ICT Competency as a covariate

Source	Sum of squares	df	Mean Square	F
Gender	340.784	1	340.784	0.601173*
Error	184231.219	325	566.865	

* Not significant at 0.05 level.

The table value reveals that the F value is not significant at 0.05 level. Hence null hypothesis, that there is no significant difference between adjusted mean scores in computer self efficacy of male and female student teachers when their pre-¬computer Competency is taken as a covariate, was not rejected. That means there is no significant difference between ICT Competency of male and female student teachers when their pre¬-computer Competency was considered as a covariate. Hence gender is not a factor influencing ICT Competency of student teachers.

DISCUSSION AND CONCLUSIONS:

The study shows that the computer education course of B.Ed. programme improvers the computer Competency of the student teachers. Hence the course was found to be effective in bringing about desired changes in the ICT Competency of the student teachers. ICT Competency of male and female student teachers were found not to be different indicating that both male and female student teachers gained equally in terms of ICT Competency on studying ICT course.

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