

# RELATIONSHIP BETWEEN ICT SKILLS AND TEACHING COMPETENCY OF B.ED TRAINEES

Research  
Paper

## ABSTRACT

*In the present study the investigator has attempted to study the relationship between ICT skills and teaching competency of B.Ed trainees. The sample consisted of 300 B.Ed trainees chosen from 10 colleges in Tirunelveli district. The investigator adopted the survey method. The findings reveal that there is significant difference between ICT skills and teaching competency of B.Ed trainees in respect of background variables.*

## INTRODUCTION

Information and communication technologies (ICTs) are a major factor in shaping the new global economy and producing rapid changes in society. Within the past decade, the new ICT tools have fundamentally changed the way people communicate and do business. They have produced significant transformations in industry, agriculture, medicine, business, engineering and other fields. They also have the potential to transform the nature of education where and how learning takes place and the roles of students and teachers in the learning process.

Teacher education institutions may either assume a leadership role in the transformation of education or be left behind in the swirl of rapid technological change. For education to reap the full benefits of ICT in learning, it is essential that pre-service and in-service teachers acquire basic ICT skills and competencies.

The critical factor in the successful integration of ICT into teacher education is the extent to which the teacher educators have the knowledge and skills in ICT integration. A well-conceived and sustained programme of professional development is therefore required to enable the teacher educators and master teachers to develop these skills. This may require development and revision of existing teacher training curriculum guidelines for pre-service and in-service teachers. (Ismail Thamarasseri, 2009).

Every profession demands certain specific skills and competencies on the part of its practitioners. Similarly, if one believes that teaching is a profession, one should demonstrate certain skills and competencies which can influence learning in the students and help them achieve their goal of life. The point of emphasis here is that the

B.Ed programme should instill certain specific skills in them, as in-service students of education. (Shashi Chittora, 2011).

## SIGNIFICANCE OF THE STUDY

In today's scenario ICT plays a significant role in all the fields. By using ICT all fields show a tremendous development. In the education field also ICT plays a major role by increasing the capacity of the learners.

Today's teacher has to be more competent in order to meet the growing demands in the education field. The focus of ICT is to bring out the attention of students. The teacher has to attract the students by using his/her competencies and skills. The teacher has to understand the student mentality. ICT greatly helps to increase the competencies of the teacher. The education systems around the world are under increasing pressure to use the new Information and Communication Technology. ICT enhances the knowledge and skills of the students in the ensuing years of the 21<sup>st</sup> Century. The 1998 UNESCO World Education Report insisted on implementing the Information and Communication Technology (ICT) immediately in higher education to pave the way for quality education. Designing and implementing emerging new technologies in higher education will enable us to escape from conventional methods of teaching and learning.

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The Information and Communication Technology permeates every aspect of higher education: the conduct of instruction, research and service. As colleges and universities respond to today's workforce and demographic needs are challenged, they begin to reexamine their assumptions about teaching by faculty and learning by students and how knowledge is acquired and retained. By implementing innovative activities through the use of advanced technologies prevailing learning impediments can be eliminated. ICT stimulates the learners to acquire quality research through teamwork, time management, self-management, adaptability, analytical thinking, global consciousness, basic communication, problem solving and guided instruction.

**OBJECTIVES OF THE STUDY**

1. To find out whether there is any significant difference between below 25 year and 25 year & above B.Ed trainees in their ICT skills.
2. To find out whether there is any significant difference between male and female B.Ed trainees in their ICT skills.
3. To find out whether there is any significant difference between below 25 year and 25 year & above B.Ed trainees in their teaching competency.
4. To find out whether there is any significant difference between male and female B.Ed trainees in their teaching competency.
5. To find out whether there is any significant relationship between ICT skills and teaching competency in B.Ed trainees.

**HYPOTHESES OF THE STUDY**

1. There is no significant difference between below 25 year and 25 year & above B.Ed trainees in their ICT skills.
2. There is no significant difference between male and female B.Ed trainees in their ICT skills.
3. There is no significant difference between below 25 years and 25 year & above B.Ed trainees in their teaching competency.
4. There is no significant difference between male and female B.Ed trainees in their teaching competency.
5. There is no significant relationship between ICT skills and teaching competency of B.Ed trainees.

**POPULATION OF THE STUDY**

The population for the present study consisted of B.Ed trainees studying in Tirunelveli District.

**SAMPLE FOR THE STUDY**

The investigator used random sampling technique. 10 colleges in Tirunelveli District were selected randomly and from each college, the students studying in B.Ed were selected randomly. The total sample consisted of 300 trainees.

**METHOD OF THE STUDY**

The survey method was used for the present study.

**TOOLS USED IN THE STUDY**

1. Information and Communication Technology skills scale adopted from Febila Joseph in (2008).
2. Teaching competency scale validated by the investigator.

**STATISTICAL TECHNIQUES USED**

Percentage analysis, t-test, F-test and Pearson's product moment correlation were used in this study.

**DATA ANALYSIS**

**Null hypothesis 1**

There is no significant difference between below 25 year and 25 year & above B.Ed trainees in their ICT skills.

**Table 1**

**DIFFERENCE BETWEEN BELOW 25 YEARS AND 25 YEAR & ABOVE B.ED TRAINEES IN THEIR ICT SKILLS**

Dimensions of ICT skills	Below 25 years (N=261)		Above 25 years (N=39)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Computer management	15.61	2.904	14.90	4.678	1.30	NS
Preparation of learning materials	10.32	2.794	9.54	3.016	1.61	NS
Basic presentation	9.52	1.929	9.23	2.411	0.85	NS
Use of internet	14.64	2.757	14.00	2.982	1.34	NS
Satisfaction in teaching through ICT skills	21.58	3.487	21.03	4.062	0.90	NS
ICT skills in total	71.68	9.911	68.69	12.203	1.70	NS

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the table below that there is no significant difference between below 25 year and 25 year & above trainees in their computer management, preparation of learning materials, basic presentation, use of internet, satisfaction in teaching through ICT skills and ICT skills in toto.

**Null hypothesis 2**

There is no significant difference between male and female B.Ed. trainees in their ICT skills.

**Table 2**  
**DIFFERENCE BETWEEN MALE AND FEMALE B.ED TRAINEES IN THEIR ICT SKILLS**

Dimensions of ICT skills	Male (N=131)		Female (N=169)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Computer management	15.37	2.70	15.64	3.53	0.73	NS
Preparation of learning materials	10.75	2.61	9.81	2.93	2.88	S
Basic presentation	9.41	1.95	9.54	2.03	0.56	NS
Use of internet	14.32	2.738	14.75	2.824	1.31	NS
Satisfaction in teaching through ICT skills	21.60	3.020	21.44	3.943	0.37	NS
ICT skills in toto	71.44	9.023	71.18	11.157	0.22	NS

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between male and female trainees in their computer management, basic presentation, use of internet, satisfaction in teaching through ICT skills and ICT skills in toto, but there is significant difference between male and female trainees in their preparation of learning materials.

While comparing the mean scores of male (mean=10.75) and female trainees (mean=9.81), the male trainees are better than the female trainees in their preparation of learning material.

**Null hypothesis 3**

There is no significant difference between below 25 year and 25 year & above trainees in their teaching competency.

**Table 3**  
**DIFFERENCE BETWEEN BELOW 25 YEAR AND 25 YEAR & ABOVE B.ED TRAINEES IN THEIR TEACHING COMPETENCY**

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Dimensions of Teaching competency	Below 25 year (N=261)		25 years & above (N=39)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Use of appropriate techniques	70.26	7.764	70.33	8.833	0.05	NS
Efficacy in teaching	88.89	9.453	88.49	13.296	0.23	NS
Effective use of aids	38.54	5.920	37.62	6.508	0.89	NS
Rapport with students and collogues	53.53	5.922	51.56	10.652	1.70	NS
catering to individual differences	27.93	2.857	27.82	3.953	0.20	NS
Teaching competency in total	278.85	26.687	275.82	35.415	0.63	NS

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between below 25 year and 25 year & above trainees in their use of appropriate techniques, efficacy in teaching, effective use of aids, rapport with students and collogues, catering to individual differences and teaching competency in toto.

**Null hypothesis 4**

There is no significant difference between male and female B.Ed trainees in their teaching competency.

It is inferred from the below table that there is no significant difference between male and female trainees in their effective use of aids, rapport with students and colleagues, but there is significant difference between male and female trainees in their use of appropriate techniques, efficacy in teaching, catering to individual differences and teaching competency in toto.

While comparing the mean scores the female trainees (m=71.49, 90.61, 28.49, 282.80) are better than the male trainees (m=68.70, 86.56, 27.17, 272.85) in their use of appropriate techniques, efficacy in teaching, catering to individual differences and teaching competency in toto.

**Table 4**  
**DIFFERENCE BETWEEN MALE AND FEMALE B.ED TRAINEES IN THEIR TEACHING COMPETENCY**

Dimensions of teaching competency	Male (N=131)		Female (N=169)		Calculated 't' value	Remark at 5% level
	Mean	S.D	Mean	S.D		
Use of appropriate techniques	68.70	7.499	71.49	7.999	1.07	S
Efficacy in teaching	86.56	10.454	90.61	9.302	3.54	S
Effective use of aids	17.79	6.434	38.91	5.603	1.60	NS
Rapport with students and colleagues	52.64	6.349	53.76	6.998	1.43	NS
Catering to individual differences	27.17	2.946	28.49	2.946	3.85	S
Teaching competency in toto	272.85	28.698	282.80	26.589	3.10	S

(At 5% level of significance the table value of 't' is 1.96)

**Null hypothesis 5**

There is no significant relationship between ICT skills and teaching competency of B.Ed trainees.

**Table 5**  
**RELATIONSHIP BETWEEN ICT SKILLS AND TEACHING COMPETENCY OF B.ED TRAINEES**

N	ΣX	ΣY	ΣX <sup>2</sup>	ΣY <sup>2</sup>	ΣXY	Calculated 'γ' value
300	21381	83573	1555181	23515261	5978416	0.258921

(At 5% level of significance for 298 df the table value of 'g' is 0.113)

It is inferred from the above table that there is significant relationship between ICT skills and teaching competency of B.Ed trainees.

**FINDINGS**

1. There is no significant difference between below 25 year and 25 year & above trainees in their computer management, preparation of learning materials, basic presentation, use of internet, satisfaction in teaching through ICT skills and ICT skills in toto.

2. There is no significant difference between male and female trainees in their computer management, basic presentation, use of internet, satisfaction in teaching through ICT skills and ICT skills in toto, but there is significant difference between male and female trainees in their preparation of learning materials. While comparing the mean scores of male (mean=10.75) and female trainees (mean=9.81) in their preparation of learning material, the male trainees are better than the female trainees.
3. There is no significant difference between below 25 year and 25 year & above trainees in their use of appropriate techniques, efficacy in teaching, effective use of aids, rapport with students and colleagues, catering to individual differences and teaching competency in toto.
4. There is no significant difference between male and female trainees in their effective use of aids, rapport with students and colleagues, but there is significant difference between male and female trainees in their use of appropriate techniques, efficacy in teaching, catering to individual differences and teaching competency in toto. While comparing the mean scores the female trainees (m=71.49, 90.61, 28.49, 282.80) are better than the male trainees (m=68.70, 86.56, 27.17, 272.85) in their use of appropriate techniques, efficacy in teaching, catering to individual differences and teaching competency in toto.
5. There is significant relationship between ICT skills and teaching competency of B.Ed trainees.

**INTERPRETATION**

1. The 't' test result reveals that male trainees are better than the female trainees in their preparation of learning material. This may be due to the fact that boys are spending most of their time with computers. They don't have any restriction to go anywhere and at anytime to learn new technologies.
2. The 't' test result reveals that female trainees are better than the male trainees in their use of appropriate techniques, efficacy in teaching, catering to individual

difference and teaching competency in toto. This may be due to the fact that the female trainees have more involvement in their work. So they prepare many teaching aids and they use many techniques in their teaching. Female trainees have the innate traits like sincerity, dedication and responsibility.

1. The 'g' test result reveals that there is significant relationship between ICT skills and teaching competency of B.Ed trainees. This may be due to the fact that as the teacher has the ICT skills, his/her teaching competency is better than others. There is a possibility of applying the new technology in the field of education, since the teacher applies the new technologies in the teaching learning process.

### RECOMMENDATIONS

1. Adequate steps should be taken to improve computer laboratories, libraries and internet facilities in Colleges of Education.
2. The college authorities should give importance to arranging discussions, debates, seminars, symposia for the dissemination of information about technological advancement. Besides these, all the B.Ed trainees must update their knowledge.
3. Teacher educators should help the trainees explore and develop interest in Information and Communication Technology by curricular and co-curricular activities. Trainees should be encouraged to read science magazines and watch educational programmes on television.
4. There should be well designed ICT learning situations for the training of future teacher educators.

### REFERENCE

1. Ismail Thamarasseri, *Information and Communication Technology in Education*, New Delhi, Kanishka Publishers, 2009.
2. Shashi Chittora (2010) "Competency-based teacher education teacher competency", *Edutracks*, Vol. 10, No. 5, January 2011.

## A CORRELATIONAL STUDY OF THE TEACHING COMPETENCY OF THE STUDENT TEACHERS...

### REFERENCE

1. Allen, Eric A. Attitude to school and teachers in a secondary modern school, 1959.
2. Bingham W.V. Aptitudes and aptitude testing Harper & Brothers New York, 1937.
3. Gupta R.C. Predication of teacher effectiveness through personality test. Ph.D. thesis, B.H.U. 1975.
4. Gupta V.P. Personality characteristics adjustment level academic achievement and professional attitude of successful teachers. Ph.D. thesis, Punjab university. 1977.
5. Passi B.K. Becoming Better Teacher-Microteaching Approach. Sahitya Mudranalaya, Ahmadabad. 1976.
6. Singh S.K. A study of some personality variables related to teaching effectiveness. Ph.D. thesis submitted to Patna University. 1976.
7. Tirupathi V.K.D. A comparative study of the personality profiles of working teachers and teacher trainees. M.Ed. dissertation B.H.U. 1972.

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