

A Comparative Study of Teacher Educator's Teaching Effectiveness of B.Ed. Institutions of Delhi (India)

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Abstract

Teacher education is a tri-polar process that includes teacher educators, student teachers, and the environment i.e. teaching material. Teacher educators belongs to heterogeneous group as they come from different background and work in different setting in terms of type of institutions, teaching subjects and gender. Present study attempts to explore the teaching effectiveness of teacher educator on the basis of their type of institutions, gender and subject of teaching. The population comprises all the teacher educators of B.Ed. Institutions of Delhi. The stratified sampling technique applied to take samples. The teaching effectiveness of teacher educators was assessed by their student teachers. The self-constructed Teacher educator's Teaching Effectiveness scale (TETES) was used measures the Teaching Effectiveness of teacher educators. 6 experts in the field of teacher education established the content validity of the scale with 54 items. The reliability of the teaching effectiveness scale was established by Test-Retest method (0.85), Split-half method (0.79)

and by Cronbach's Alpha (0.926). The result shows that moderate level of teaching effectiveness was found and there was no significant difference in teacher educators' teaching effectiveness to their type of institutions, gender, and teaching subject except in case of student teacher relation and use of ICT. The comparison of Teaching Effectiveness of teacher educators with respect to type of institutions, gender, and subject of teaching provided a base to understand the present situation of teacher education institutions in Delhi.

Keywords: Teaching effectiveness, Teacher educators, B.Ed. institutions, Government institutions, Self-financed institutions.

INTRODUCTION

Teacher educators belong to assorted group as they come from diverse background and work in different setting in terms of type of institutions, teaching subjects and gender. They are responsible for the quality of teacher education directly and influence the quality of education indirectly. They act as guiding force at every stage in the process of education (Cochran-Smith, 2003, Liston, Borko, & Whitcomb, 2008, Goodwin & Kosnik, 2013,). They guide teachers explicitly as well as implicitly. Teacher educators educate their student teachers to reflect on their practice to improve their teaching. They also guide serving teachers about their professional development and innovate new ways to improve teaching-learning process and support both new and experienced teachers. However, the researches carried out teacher educators are inadequate as compared to researches done on teachers (Karagiorgi & Nicolaidou, 2013), & limited attention have been paid on vital and important aspect of teacher education (Loughram, J (2006). According to Murrey (2005) "Teacher educator profession is under researched and inadequately understood occupational group". In the onset of 21st century the teacher educators have gradually received more attention and attracted by educational researchers (Koster, Brekelmans, Korthagen & Wobbels 2005). The educationists agree that teacher educators should work at high professional level as they determine the quality

of teacher. A sound and high-quality teacher education program is needed to generate high quality teachers.

Teaching effectiveness is an essential condition for making learning more significant, understandable, interesting, motivating, accessible, and enhancing learning. There is a positive and significant association between teaching effectiveness and student's academic achievement (Kiadese, A. L.,2011; Adekola, BO., 2006). As the quality of students' achievement depends on teachers' quality, the quality of teachers depends on the quality of teacher educators. They actively concerned directly or indirectly in the education of teachers. Hence, teacher educators, who are accountable and responsible for teacher education quality and our country's teachers, require more emphasis.

In Indian, a large no of private and self-financing institutions came into the field of teacher education to meet the demand of a huge number of teacher educators. A large number of institutions are offering B.Ed. course in India. In Delhi alone, there are two types of institutions which are offering B.Ed. course i.e. Govt. aided and self financed institutions, in which around 1800 teacher educators are teaching. The Privatization of teacher education is continued from two decades. As a result a many substandard teacher education institutions also opened just for the sake of making money. They run without qualified and incompetent teacher educators, limited infrastructure and charging huge amount of money from students. Hence, the present study is an effort to compare the Teaching Effectiveness of teacher educators with respect to type of institutions, gender, and subject of teaching. It will provide a base to understand the present situation of teacher education institutions.

Theoretical framework

Pedagogical content knowledge is the way of formulating and representing the subject that make it understandable to students. (Shulman,1987). It is combination of content and pedagogy through which particular topics are

prepared, modified and presented according to the interests and abilities of learners. Mishra & Koehler 2006 presented a framework i.e. TPACK which has seven elements such as “content knowledge, pedagogical knowledge, pedagogical content knowledge (PCK), technology knowledge, technological content knowledge(TCK), technological pedagogical knowledge(TPK), technological content pedagogical knowledge(TCPK)”. It is basically integration of three sources of knowledge i.e. content, pedagogy and technology.

Mercy L.Pena-Morales (2016) proposed a model “Pedagogical Content Knowledge in an Educational context (PCK-EC)” to support teaching within a specific context (school, subject matter). This framework also includes pedagogy, content and technology in an educational setting or context. On the basis of the PCK theory of Shulman (1986), TCPK theory of Mishra & Koehler 2006 and PCK-EC proposed by Mercy L.Pena-Morales (2016), nine dimensions formulated to construct the tool to assess teacher effectiveness of teacher educators.

These are as follows;

1. Personality: This dimension includes statements regarding personal attributes of teacher educators such as their creativity, kindness, sense of humor, punctuality and care for students' welfare.
2. Subject expertise: This dimension includes statements regarding the teacher educator's command over the subject. This dimension is associated to the content knowledge of teacher .
3. Student-teacher and teacher educator relation: Under this component, those statements included which tell the relationship between student and teacher.
4. Teaching strategy: This dimension comprises the statements concerning teacher educator's style and teaching skills to make the lesson easy and exciting.
5. Classroom management: This dimension includes classroom management statements such as class discipline, giving appropriate rewards and teamwork.

6. Professional competence: This dimension is related to teacher educators' capabilities to perform duties acceptably. It includes the statements regarding dedication towards the profession, their role and Use of technology.
7. Communication skills: This component of the teaching effectiveness scale comprises the statement concerning teacher educators' communication skills.
8. Assessment and feedback: This dimension includes a statement regarding testing and scoring criteria and feedback given to the student by the teacher educators.
9. Use of Information and communication technology (ICT): This dimension includes statements regarding Use of technology in teaching.



Figure 1.1: The conceptual model of teaching effectiveness of Teacher educators
Adapted from Barman et al. (2015).

RESEARCH REVIEW

Studies related to the Teacher Educators

A study on teacher educators was carried to discover the impact of age, experience, qualification, personality type, and gender on stress level at work by Jain A, Tyagi. H. K and Kumar, A in 2015. 100 teacher educators were selected from Delhi. The result showed that Female, Less qualified, less experienced and Introvert type of teacher educators was more stressed.

Singh,S, Chabra,S,&Chopra,V(2019) attempted a study to find out the professional commitment of teacher educators to gender and qualification. 80 teacher educators from theGautamBudh Nagar was the sample. High level of professional commitment was seen among teacher educators, and there was no difference with respect to their gender and qualification.

M.R.Ali (2020) conducted a study to find out the professional commitment of teacher educators for their gender, types of institute, qualification and locality of the colleges. The moderate level of professional commitment was found among teacher educators and a significant difference was also seen for their gender and locality of institutions, qualification and marital status.

Studies conducted on Teaching Effectiveness

Maruli,S (2014) conducted a review study in order to understand the concept of quality teaching, its components and characteristics. The researcher searched the research papers, articles, books related to quality teaching, which were available on internet since 2000. He also collected articles, conferences presentations and book chapters from other personal collection. The researcher suggested that a value added model to measure teaching effectiveness and to provide an accurate, easy, inexpensive and meaningful feedback. This model will improve the capacity of teachers throughout the career.Khan,N.A (2018) investigated the consequence of extraversion and neuroticism on teacher

effectiveness. The results indicated that extravert female teachers were found to be significantly better in teaching effectiveness than the introvert female teachers. It is because of difference of cortical arousal level in extrovert and introvert individual. Soni, P.D (2017) conducted a study on teacher effectiveness of Secondary school teachers of Government and Private sector. The result showed that there was significant difference between Govt. and Private teachers. Private secondary school teachers were more effective teachers than Govt. teachers. There was no significant difference with respect to their gender.

Dash, U & Barman, P (2018) conducted a study on teaching effectiveness of secondary school teachers of West Bengal. Students assessed the teaching effectiveness. The sample consists of 100 teachers and the questionnaires were distributed to their concern students. The researcher constructed the questionnaire. The scale had 10 dimensions and 55 items. The data was collected and analyzed statically with the help of mean, S.D. t-Test, ANOVA. The result showed that the overall level of teaching effectiveness was good and no significant difference was found on the basis of Gender, Stream, Training Status and Qualification, whereas significant difference was found on the basis of School Location. A lot of studies have been done on teaching effectiveness and ample of tools are available to assess teaching effectiveness of teachers at the school level, whereas, few studies have been conducted to measure the teaching effectiveness of teacher educators (Barman, P., Bhattacharyya, D., & Barman, P. 2015). Therefore, the present paper is designed to evaluate the teaching effectiveness of teacher educators for the type of institutions, gender and subject of teaching.

OBJECTIVES OF THE STUDY

1. To study the level of teaching effectiveness of teacher educators working in B.Ed. institutions in Delhi.
2. To know and compare the teaching effectiveness of teacher educators concerning their type of institutions.

3. To know and compare teaching effectiveness of teacher educators concerning their gender.
4. To know the teaching effectiveness of teacher educators concerning their subjects of teaching.

HYPOTHESES OF THE STUDY

1. There would not be high level of teaching effectiveness among teacher educators teaching in Delhi.
2. There would not be any significant difference in teaching Effectiveness of teacher educators for their type of institutions.
3. There would not be any significant difference in teaching Effectiveness among teacher educators for their gender.
4. There would not be any significant difference in teaching Effectiveness among teacher educators for their teaching subjects.

OPERATIONAL DEFINITIONS

- **Teaching effectiveness-** Teaching effectiveness refers to the collection of characteristics, competence and behavior of teacher educators such as Personality, Subject expertise, Student- teacher and teacher educator relation, Teaching strategy, Class room management, Professional competence, Communication skills, Assessment and feedback and Use of ICT that enable student teachers to reach desired outcome.
- **Teacher educators-** Teacher educators refer to those teachers who are teaching pre-service teachers pursuing B.Ed. course in Delhi.
- **Government B.Ed. institutions-** The institutions conducting B.Ed. course with the financial support of the Government.
- **Self-financed B.Ed. institutions-** The institutions conducting B.Ed. course without the financial support of Government. The recurring Expenditure to run the B.Ed. course is being met by the students' fee.

DELIMITATIONS

1. This study is confined to the teacher educators teaching in B.Ed. institutions of Delhi.

METHODOLOGY

The present study was descriptive in nature. The investigator has used survey method for describing and investigating the existing phenomenon.

Population and Sample of the Study

All the teacher educators working in B.Ed. institutions of Delhi were the population. The stratified sampling technique was used to take the sample. The teaching effectiveness of teacher educators was assessed by their student teachers. Four student teachers were taken to assess the teaching effectiveness of each teacher educators. In this way, the teaching effectiveness of 100 teacher educators were assessed by 400 student teachers as it is most common and widely used method to assess teaching effectiveness of teachers especially in higher education (Henderson, C. et.al.,2014, Wachtel, H,1998, Carrell, S.E et al, 2010). In order to get desired sample of student teachers, the scale to assess teaching effectiveness of their teacher educators were distributed to 430 student teachers and out of 430 questionnaires, 386(148student teachers from Government and 238student teachers from self-financed) completed the scales. 386 scales were selected as final sample. (The response rate was 97%) Therefore, 386 questionnaires were considered to assess teaching effectiveness of teacher educators teaching in B.Ed. institutions of Delhi.

a. Tool of the Study

For the present study investigator has used self-constructed Teacher educator's Teaching Effectiveness scale (TETES) to measure the Teaching Effectiveness of teacher educators. The selection of items was carried out by item analysis as suggested by Edward (1957). The content validity of the scale was established by giving preliminary draft of scale to six experts Out of 6 experts 4 were experts in the field of teacher education and two were language experts, to check the accuracy and quality of items. The reliability of the

teaching effectiveness scale was established by Test-Retest method(0.85), Split-half method(0.79) and byCronbach's Alpha(o.926). The scale has 54 items distributed in nine dimensions.

b. Data collection and Techniques of Data Analysis:

The permission has taken from concerned authority for data collection.The investigator interacted with the respondents and requested to fill the questionnaires. After collecting all questionnaires, the investigator has added all scores against each item got total score .For the positive items, direct scoring method was used i.e.5-4-3-2-1, and reverse scoring method was used i.e.1-2-3-4-5 for negative items.The Mean, Standard deviation, t-test and were used for analyzing the data

FINDINGS

Level of teaching effectiveness

To measure the level of teaching effectiveness of teacher educators working in different types of B.Ed. institution of Delhi, the total score was categorized into three levels on the bases of normal distribution and by applying the formula (M+SD, M-SD).

$$M+SD=215.68+28.66=244.34$$

$$M-SD=215.68-28.66=187.02$$

Table 1: Showing the criteria of teaching effectiveness of teacher educators

<i>SCORES</i>	<i>Level of teaching effectiveness</i>
<i>Above 244.34</i>	<i>High</i>
<i>Between 187.02-244.34</i>	<i>Moderate</i>
<i>Below 187.34</i>	<i>Low</i>

Table 1.1: showing the level of teaching effectiveness of teacher educators evaluated by their concern students

<i>Scores</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Mean</i>	<i>Level of teaching effectiveness</i>
<i>Above 244.34</i>	52	13.47	254.44	HIGH
<i>Between 187.02- 244.34</i>	272	70.46	219.32	MODERATE
<i>Below 187.02</i>	62	16.06	164.37	LOW
<i>TOTAL</i>	386	100	215.68	

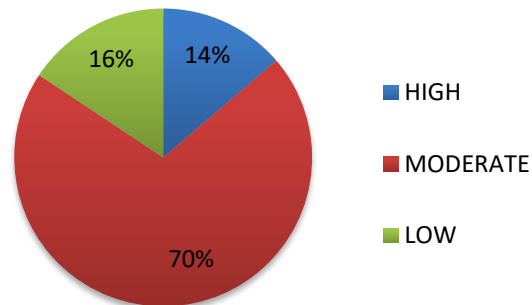


Figure 1: The level of teaching effectiveness of teacher educators evaluated by their concern students

Out of 386 student teachers, only 56(13.74%) student teachers scored above 244, 280(70.58%) student teachers scored between 187-244, and 64(16%) teacher educators scored below 187. Hence, we can say that only 14% teacher educators have high level of teaching effectiveness, 71% teacher educators have moderate level of teaching effectiveness and 16% teacher educators have low level of teaching effectiveness on the evaluation by their concern students. This finding goes with the result found by Barman, P., Bhattacharyya, D. D, & Barman,

P. (2015). Hence, it can be said that only 14% student teachers believe that teaching delivered by their teacher educators is highly effective, 71% students believe that teaching delivered by their teacher educators is moderately effective and about 16 % students have the opinion that there is low level of teaching effectiveness among teacher educators working in B.Ed. institutions of Delhi.

Institution based

In order to test null hypothesis, the mean, SD of the two groups was calculated and t-value was calculated.

Table 2: Comparison on dimensions of teaching effectiveness of teacher educators for their type of institutions

S.No.	DIMENSIONS	Government		Self-financed		t-value	Result
		Mean	SD	Mean	SD		
1.	Personality	24.5	3.8	24.6	3.7	0.26	NS
2.	Subject expertise	21.4	3.3	20.9	4.4	1.24	NS
3.	Student teacher relation	32.8	4.9	31.7	5.6	2.01*	0.05
4.	Teaching strategy	42.1	41.0	6.0	6.5	1.07	NS
5.	Classroom Management	12.2	1.9	12.6	3.4	1.33	NS
6.	Professional competence	8.5	1.63	8.4	1.70	0.66	NS
7.	Communication Skills	21.1	3.2	20.9	3.1	0.37	NS
8.	Assessment and feedback	26.7	4.6	26.2	4.6	1.01	NS
9.	Use of ICT	15.9	4.6	17.0	4.6	2.36*	0.05
10.	Overall teaching effectiveness	217.1	28.4	215.2	28.7	0.61	NS

NS=Not significant, *Significant at 0.05 level of significant

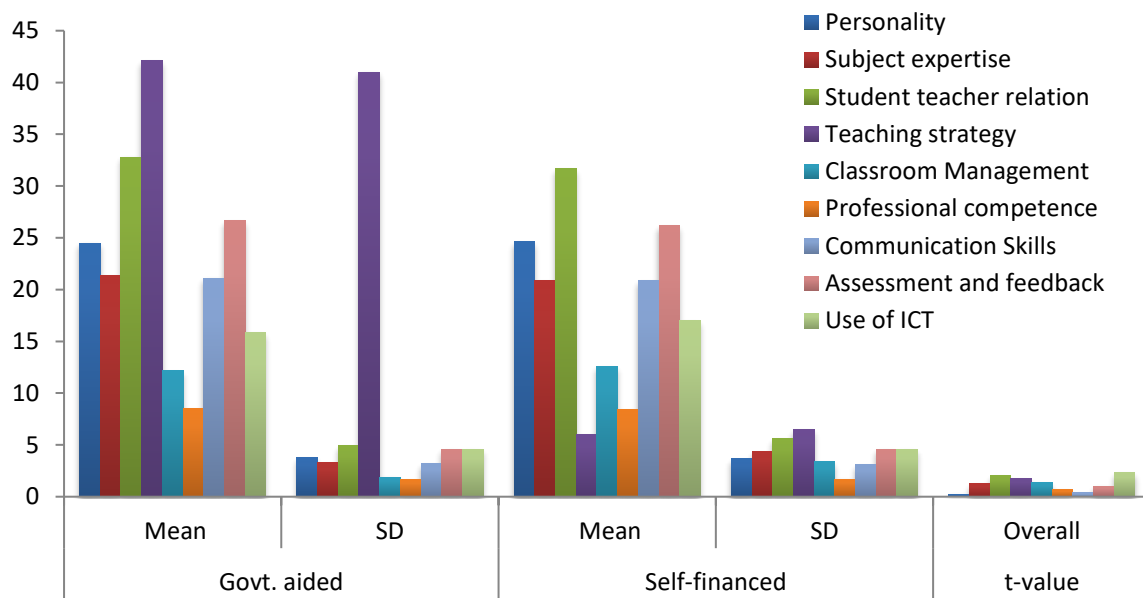


Figure 2: Histograms representing the statistical metrics for the Dimensions of teaching Effectiveness of teacher educators for their type of institutions

Gender based

Table: 3 Comparison on dimensions of teaching effectiveness of teacher educators for their gender

S.No.	DIMENSIONS	Male		Female		t-value	Result
		Mean	SD	Mean	SD		
1.	Personality	25.0	3.6	24.5	3.8	1.03	NS
2.	Subject expertise	21.2	3.4	21.0	4.2	0.43	NS
3.	Student teacher relation	32.8	5.0	31.9	5.4	1.28	NS
4.	Teaching strategy	42.0	5.4	41.2	6.6	1.11	NS
5.	Classroom Management	12.3	1.7	12.5	3.2	0.33	NS
6.	Professional competence	8.5	1.7	8.4	1.7	0.23	NS
7.	Communication Skills	21.1	2.8	20.9	3.2	0.38	NS
8.	Assessment and feedback	26.9	4.4	26.3	4.6	1.03	NS
9.	Use of ICT	15.9	4.8	16.6	4.4	2.40*	0.05
10.	Over all teaching effectiveness	217.2	2.95	215.6	1.68	0.44	NS

NS=Not significant, *Significant at 0.05 level of significant

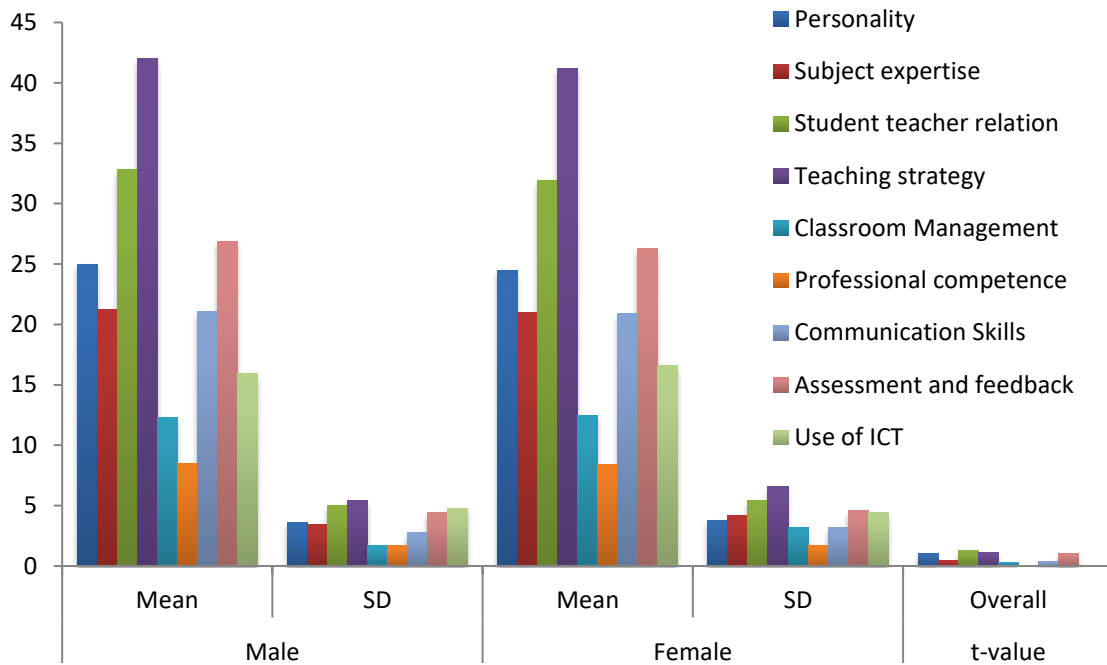


Figure 3: Histograms representing the statistical metrics for the Dimensions of teaching Effectiveness of teacher educators for their gender

A statically significant difference was identified in use of ICT(t ratio=2.36) dimensions of teaching effectiveness scale whereas in other dimensions such as personality ,subject expertise, student teacher relation,classroom management, teaching strategy, professional competence, communication skills, no significant difference was found.

Teaching subject based

Table 3: Comparison on dimensions of teaching effectiveness of teacher educators for their teaching subjects

S.No.	DIMENSIONS	Science group		Non-science group		t-value	Result
		Mean	SD	Mean	SD		
1.	Personality	24.0	3.7	24.5	3.5	1.41	NS
2.	Subject expertise	22.2	3.4	21.0	4.2	0.23	NS
3.	Student teacher relation	31.8	5.6	30.9	4.4	1.54	NS
4.	Teaching strategy	42.6	4.4	41.2	6.1	1.32	NS
5.	Classroom Management	12.8	1.8	12.5	3.1	0.43	NS
6.	Professional competence	8.8	1.7	9.1	1.8	0.23	NS
7.	Communication Skills	20.1	2.7	20.9	2.8	0.59	NS
8.	Assessment and feedback	26.5	4.2	26.7	4.6	1.13	NS
9.	Use of ICT	15.9	4.8	15.6	3.4	1.40	NS
10.	Over all teaching effectiveness	216.9	27.2	215.5	28.7	0.87	NS

NS=Not significant

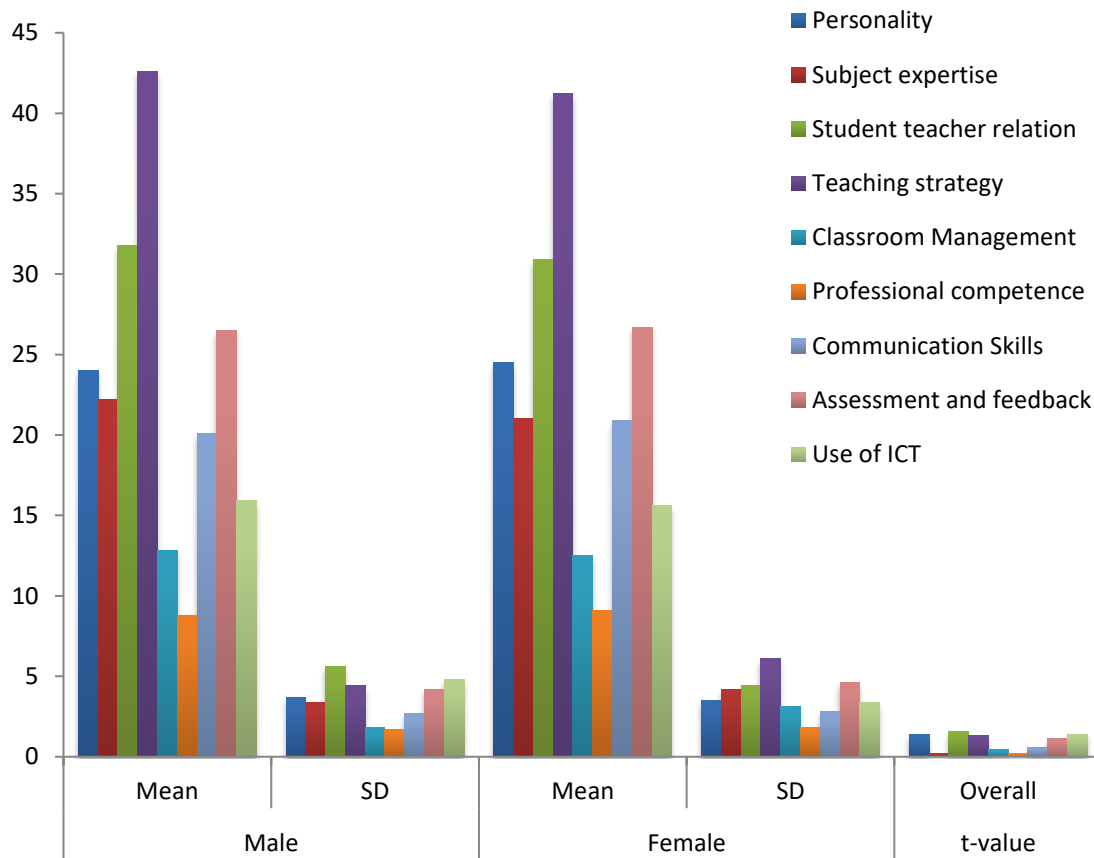


Figure 4: Histograms representing the statistical metrics for the Dimensions of teaching Effectiveness of teacher educators for their subject of teaching

DISCUSSION AND CONCLUSION

The teacher educator’s teaching effectiveness is the most fundamental condition or prerequisite to enhance the learning and make it more productive and fruitful. The association between teacher factors and learner achievement is evident, and supported by the many research studies (Dash, U& Barman, P (2018), Khan, N.A (2018), Maruli, S (2014). An effective teacher educator entails many qualities and has to perform many responsibilities such as training, teaching, research, extension activities, curriculum development and supervision. Various factors contribute to teacher educators’ quality, including personality, subject mastery, student teacher relationship, teaching style, professional competence, classroom management,

communication, and Use of ICT. In Delhi, there are 7 Government and 24 self-financed B.Ed. Institutions, which are engaged in the process of making teachers. The result identified moderate level of teaching effectiveness among teacher educators which is supported by the results found in studies conducted by R.Ranjith Kumar and FezeenaKhadir(2013) and Barmen.P and Bhattacharyya.D(2015). The t-test performed to compare the teaching effectiveness of teacher educator reveals that there is no significant difference found between teacher educators of Government institutions and self-financed institutions except in the dimensions of student-teacher relation and Use of ICT. The self-financed institutions are doing equally good and go parallel with Government institutions. It may be due to better working condition in private institutions due to rules of recognitions and norms of NCTE (2014) and assessment criteria developed by NAAC India.

The teacher educators working in Government institutions have better and positive relationship with their students but as far as use of ICT is concern they are using less technological tools than the teacher educators working in self-financed B.Ed. Institutions. Some senior teacher educators are unable to integrate technology with their pedagogy because technology is a terrifying field for them. This problem can be resolved by organizing workshops and orientation programs on TPACK model in their teaching practice.

Another finding of the study is that there is no significant difference observed between male and female teacher educators except in Use of ICT. It shows that gender has no significant affiliation with teaching effectiveness (Soni,P.D,2017). It is suggested to organize the ICT based on-line as well as offline in-service training programs to enhance the competency in ICT.

The study also found that there is no significant difference in teaching effectiveness of teacher educators for their subject of teaching towards all nine dimensions of teaching Effectiveness. It indicates that all teacher educators have knowledge of their subjects and aware about their responsibilities and values of the teaching profession. Healthy environment and better infrastructure is also needed to enhance teaching effectiveness.

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