



# STATISTICAL ANALYSIS OF TEACHER EFFECTIVENESS OF TEACHER EDUCATORS

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## **Abstract**

Teacher effectiveness is the ability of a teacher to communicate effectively with students and teachers. It includes the intra and inter-personal skills. The role of a teacher is not only mere teaching of the subject matters but also to shape and mould the students in all dimensions. Teacher effectiveness helps the teacher to complete this task easily.

In this paper, level of Teacher Effectiveness of teacher educators were analyzed with respect to their gender, marital status, habit of reading newspaper, computer literacy, qualified degree, age, teaching experience, salary and number of publications. The data was collected through statistical tools and techniques from various B.Ed colleges in Kanyakumari District, Tamil Nadu, India. Results were compared with different teacher effectiveness and finally recommendations were given.

**Keywords:** *Teacher Effectiveness, Teacher educators, statistical technique,*

## **1. Introduction**

The term "teacher effectiveness" is used broadly, to mean the collection of characteristics, competencies, and behaviors of teachers at all educational levels that enable students to reach desired outcomes, which may include the attainment of specific learning objectives as well as broader goals such as being able to solve problems, think critically, work collaboratively, and become effective citizens.

## **2. Literature review**

This review involves the systematic identification, location and analysis of documents containing related to the research problem.

Sreelatha Prasad and Krishna (2011) implemented a study on, relationship between personality and teacher effectiveness of mathematics teachers. The study revealed that there is a positive and significant relationship between personality and teacher effectiveness of mathematics teachers.

Dhillon and Maur (2009) demonstrated a study on, teacher effectiveness in relation to their value patterns. The study revealed that there is no significant difference in the level of teacher effectiveness and value pattern of government and private school teachers as well as male and female teachers.

Puri Shallu and Gakhar (2009) investigated a study on, certain cognitive and non- cognitive variables as predictors of teacher effectiveness of teacher educators. The study revealed that certain cognitive variables such as general mental ability, emotional intelligence and problem solving ability and also certain non- cognitive variables such as teacher's adjustment, attitude towards teaching, occupational stress which predict the teaching effectiveness of teachers of college of education.

Annaraja (2009) presented a study on Effectiveness of Teaching Thinking styles on Achievement in Mathematics of IX Standard Students to find out the significant difference between pre-test and post-test scores of control group and experimental group and to find out the significant relationship between achievement in mathematics and thinking styles of the experimental group students.

Bansibihari, Pandit and Sunvade (2006) demonstrated a study on, the effect of emotional maturity on teacher effectiveness. The result indicated that female teachers are emotionally more mature/stable than male teachers, emotionally mature/stable teachers are more effective in their teaching than emotionally immature/ unstable teachers and there is no sex difference in emotionally mature group with respect to teacher effectiveness.

Manoharan and Meenakshisundaram (2005) presented a study on, certain personal variables as related to classroom climate and teacher effectiveness as perceived by higher secondary students. The study revealed that there is significant and moderate relationship between classroom climate and teacher's teaching effectiveness as perceived by students.

Upadhya, Bala Krishna and Singh Bhupendru (2001) implemented a study on "Occupational stress among college and effectiveness of school teachers" The study intended to investigate the level of occupational, stress experienced by the college teachers and the higher secondary school teachers.

Bawa, M. S (2001) demonstrated a study on "Professional development of teachers through modelling" to examine the effectiveness of modelling based training in developing teaching competence for teaching science.

### 3. Methodology

After analyzing the characteristics of the study, the investigator has taken a survey regarding Teacher Effectiveness of teacher educator from various B.Ed colleges. The collected data was analyzed with statistical technique. The datasheet includes general information about the respondents regarding name of the gender, age, marital status, qualified degree, teaching experience, newspaper reading, computer literacy, and number of publications.

The standardized rating scale on teacher effectiveness was used by the investigator. This scale was developed by Umrne Kulsum in the year 2000.

Teacher effectiveness Scale consisted of 60 items of teacher effectiveness and were categorized into six Dimensions namely, Preparation of Teaching and Planning, Classroom Management, Knowledge of Subject- Matter, Teacher Charactersistics, Interpersonal Relations.

### 4. Results and Discussions

The data was collected through various tools and techniques for statistical techniques.

#### *Hypothesis: 1*

**Table 1.1**  
**Level of Teacher Effectiveness and Its Dimensions**

Low		Average		High	
N	%	N	%	N	%
37	24.7	72	48.0	41	27.3

It is observed from the above table 27.3%, 48.0% and 24.7% of teacher educators have high level, average level and low level teacher effectiveness respectively.

**Hypothesis: 2**

**Table 1.2**  
**Difference between Teacher Effectiveness and Its Dimensions of Teacher Educators with respect to their Gender**

Gender	No.	Mean	S.D	t value	p value	Remarks
Male	46	243.57	27.001	0.596	0.552	N.S
Female	104	246.28	25.100			

It is observed from the above table that there is no significant difference between Teacher Effectiveness with respect to their gender, since the 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 3**

**Table 1.3**  
**Difference between Teacher Effectiveness and Its Dimensions of Teacher Educators with respect to their Marital Status**

Marital Status	No.	Mean	S.D	t value	p value	Remarks
Unmarried	9	245.00	20.087	0.054	0.957	N.S
Married	141	245.48	26.009			

It is observed from the above table that there is no significant difference between Teacher Effectiveness and its dimensions with respect to their marital status, since 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 4**

**Table 1.4**  
**Difference between Teacher Effectiveness and Its Dimensions of Teacher Educators with respect to their Habit of Newspaper Reading**

Newspaper Reading	No.	Mean	S.D	t value	p value	Remarks
Yes	146	245.52	25.918	0.063	0.950	N.S
No	4	246.25	13.251			

It is observed from the above table that there is no significant difference between Teacher Effectiveness and its dimensions with respect to their Habit of Newspaper Reading, since 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 5**

**Table 1.5**

**Difference between Teacher Effectiveness and Its Dimensions of Teacher Educators with respect to their Computer Literacy**

Computer Literacy	No.	Mean	S.D	t value	p value	Remarks
Yes	134	245.41	24.7566	0.225	0.8235	N.S
No	16	246.94	33.326			

It is observed from the above table that there is no significant difference between Teacher Effectiveness of teacher educators with respect to their computer literacy, since the 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 6**

**Table 1.6**

**Difference between Teacher Effectiveness and Its Dimensions of Teacher Educators with respect to their Qualified Degree**

Source of Variation	Sum of Squares	df	Mean Square Variation	Calculated F value	p value	Remarks
Between	341.000	245.41	113.667	0.170	0.916	N.S
Within	97592.073	146	668.439			

It is observed from the above table that there is no significant difference between Teacher Effectiveness of teacher educators with respect to with respect to their qualified degree, since the 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 7**

**Table 1.7**

**Difference between Teacher Effectiveness and Its Dimensions of Teacher Educators with respect to their age**

Variable	df	Calculated $\chi^2$ Value	P value	Remarks
Teacher Effectiveness	4	6.259	0.181	N.S

It is observed from the above table that there is no significant difference between Teacher Effectiveness with respect to their age, since 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 8**

**Table 1.8**

**Difference between Teacher Effectiveness and Its Dimensions of Teacher Educators with respect to their teaching Experience**

Variable	Df	Calculated $\chi^2$ Value	P value	Remarks
Teacher Effectiveness	4	6.044	0.096	N.S

It is observed from the above table that there is no significant difference between Teacher Effectiveness of teacher educators with respect to with respect to teaching experience, since the 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 9**

**Table 1.9**

**Difference between Teacher Effectiveness of Teacher Educators with respect to their Salary**

Variable	df	Calculated $\chi^2$ Value	P value	Remarks
Teacher Effectiveness	4	3.938	0.414	N.S

It is observed from the above table that there is no significant difference between Teacher Effectiveness of teacher educators with respect to with respect to their salary, since the 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

**Hypothesis: 10**

**Table 1.10**  
**Difference between Teacher Effectiveness of Teacher Educators**  
**with respect to their Number of publications**

Variable	df	Calculated $\chi^2$ Value	P value	Remarks
Teacher Effectiveness	6	4.322	0.633	N.S

It is observed from the above table that there is no significant difference between Teacher Effectiveness of teacher educators with respect to with respect to their number of publications, since the 'p' value is greater than 0.05. Hence the null hypothesis is accepted.

### 5. Conclusions and Recommendations

In this paper, a survey was taken to collect the data, information regarding Teacher Effectiveness in various dimensions with respect to their gender, marital status, habit of reading newspaper, computer literacy, qualified degree, age, teaching experience, salary and number of publications. The survey includes 150 teacher educators from Kanyakumari district.

1. 48.0 % of teacher educators have average level of Teacher Effectiveness respectively.
2. There is significant difference between teacher effectiveness of teacher educators with respect to their gender.
3. There is no significant difference between Teacher Effectiveness of teacher educators with respect to their marital status
4. There is no significant difference between Teacher Effectiveness of teacher educators with respect to their habit of newspaper reading
5. There is no significant difference between Teacher Effectiveness of teacher educators with respect to their habit of computer literacy.
6. There is significant difference in the Teacher Effectiveness of teacher educators with respect to their qualifying degree.
7. There is no significant difference between Teacher Effectiveness of teacher educators and their age.
8. There is no significant difference between Teacher Effectiveness of teacher educators and their teaching experience.
9. There is significant difference between Teacher Effectiveness of confused thinking, style of teacher educators and their salary.
10. There is significant difference between Teacher Effectiveness of teacher educators and their number of publications.

The following recommendations were given for the teacher educators regarding teacher effectiveness ,

- Usage of Internet in a moderate range and habit of reading newspaper are advocated.
- Strict supervision is needed for the development of teacher effectiveness during practice teaching.
- Give equal importance to theory as well as practical's in teacher training courses.



- Strict supervision is needed during practice teaching for the development of competent teachers
- Micro teaching practice should be executed for as much as teaching skills by following the exact procedure, which may help to develop the required skills for teaching and thus promote teacher effectiveness.
- Citizenship training camps, special camps, educational clubs and educational tours should be executed as compulsory programmes in teacher education.
- Group activities and team activities must be encouraged.
- Develop a positive attitude and passion towards teaching profession, since it is the noblest profession.

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