

# Teacher Effectiveness of Secondary School Mathematics Teachers with Reference to the Variable: Type of Institution and Medium of Instruction

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## Abstract:

In this paper main focus the Teacher Effectiveness of secondary school mathematics teachers with reference to the variable. Type of Institution and Medium of instruction. A simple random sample of 100 secondary school mathematics teachers in Guntur district was selected. Teacher Effectiveness Scale (Test) by Umme Kulsum (2014) . the tool possess 60 items Five options are given for each statement and teachers should select the correct option among the five given options i.e. Strongly Agree(SA), Agree(A), Undecided(UD),Disagree(DA)and Strongly Disagree(SD). All the statements are positive statements only. Mean, SD and ‘t’ values were calculated. The study revealed that TeachingEffectiveness of the of the secondary school mathematics teachers w.r.to. namely –Type of Management, Medium of instruction.

**Keywords:** Teacher, Effectiveness; mathematics and secondary school

## Introduction:

According to Buddha ‘the lamp always carries the unique quality. A lamp is able to light another lamp without losing any of its own brilliance and remains sparkling forever. This lamp can be compared with a teacher’.

Teacher can be considered as a pivot of educational process. He has the greatest responsibility on his/her shoulders in building the nation. The teaching is the fundamental duty of a teacher and it has to be made effective in order to make a successful teacher. ‘Successful’ and ‘Effective’- these two terms may be used as synonymously in the context of good teaching. Mursell has therefore aptly observed, “Successful teaching is teaching that bring about effective learning.” In the absence of learning teaching is just talking. So, it is not the teaching, but the effective teaching which is considered influential.

## Need of the Study:

The teaching effectiveness comprises one or more abilities of a teacher to produce educational effect in a situation or context (Mitzel, 1982). Maximising the effectiveness of a teacher in teaching is a major goal of education. The Secondary Education Commission, Indian Education Commission and National Policy on Education categorically pointed out the need for improving the teacher training programmes

for increasing the teaching effectiveness of prospective teachers. Nothing is more important than serving a sufficient supply of high quality teachers to the teaching profession, providing them with possible preparation and creating satisfactory conditions of work in which they can be fully effective. Generally highly talented students in mathematics are not attracted to teaching profession and they prefer to join in other courses.

### **Review of related Literature:**

The findings of Donna Lalnunfeli (2019) no significant difference in their effectiveness level with reference to their gender, educational qualification, stage in which they are teaching

According **Promod Kuar Naik (2018)** there is no significant mean difference among male and female teachers working in government and private secondary schools located in rural and urban area

The finding of **Kumari and Chahal (2017)** teacher effectiveness of government school teachers is higher than private school teachers, gender and locality does not have any significant role in teacher effectiveness

**Biswas (2017)** observe that there is a significant difference in teacher effectiveness among the school teachers with respect to locality, class handled (secondary and higher secondary) and academic streams

### **Title of the Study:**

**Teacher Effectiveness of secondary school mathematics teachers with reference to the variable – Type of Institution Medium of instruction**

### **Operational Definitions of Key Terms:**

#### **Teacher Effectiveness**

The ability of students to achieve desired outcomes, which may include the achievement of specific learning objectives as well as more general goals like the ability to solve problems, think critically, work collaboratively, and become influential citizens, is referred to as teacher effectiveness. This term refers to the collection of characteristics, competencies, and behaviours of teachers at all educational levels.

#### **Secondary school mathematics teachers:**

Investigator selected only those private and government secondary school mathematics teachers.

### **OBJECTIVES OF THE STUDY**

1. To find out the level of Teaching Effectiveness of the of the secondary school mathematics teachers.
2. To find out the Teacher effectiveness of the secondary school mathematics teachers with respect to the following components namely
3. To find out the Teaching Effectiveness of the of the secondary school mathematics teachers w.r.to. namely –Type of Management, Type of school

### **HYPOTHESES OF THE STUDY:**

There would be no significant difference in the Teaching Effectiveness of Secondary School Maths Teachers with reference to socio-demographic variables namely - Type of Management, medium of instruction

**Delimitations of the Study:**

- The study is limited to 100 mathematics teachers only.
- The sample study is limited to 400 students only.
- The study is limited to Guntur district only
- The Study is limited to 4 dimensions of Empowerment i.e. Social empowerment, Educational empowerment, Psychological empowerment and Economic empowerment only.
- The study is limited to the variables such as Type of Management and Medium of instruction

**METHODOLOGY:**

**Method of the Study:** The present study employed Normative survey method.

**Sample of the Study:** In the present study, simple random sampling technique was followed to select 100 secondary school mathematics teachers from Guntur district of Andhra Pradesh.

**Research Tool :** Teacher Effectiveness Scale (Test) by Umme Kulsum (2014) . the tool possess 60 items Five options are given for each statement and teachers should select the correct option among the five given options i.e. Strongly Agree(SA), Agree(A), Undecided(UD),Disagree(DA)and Strongly Disagree(SD). All the statements are positive statements only.

**Table–1: Mean, Standard Deviation and t-values Teacher Effectiveness of Government and Private school Mathematics Teachers**

S. No.	Dimension wise Teacher Effectiveness	Type of Management	N	Mean	S.D	t-Value
1	Preparation for teaching and planning	Government	200	38.95	1.90	3.72** (p=0.013)
		Private	250	38.28	1.97	
2	Classroom management	Government	200	44.06	2.69	3.36** (p=0.010)
		Private	250	43.42	2.55	
3	.Knowledge of subject matter	Government	200	34.01	1.34	5.89** (p=0.002)
		Private	250	32.89	1.30	
4	Teacher characteristics	Government	200	56.62	1.68	3.70** (p=0.001)
		Private	250	55.99	1.48	
5.	Interpersonal relations	Government	200	37.12	1.71	3.88** (p=0.141)
		Private	250	36.42	1.42	
	Type of Management	Government	200	213.42	10.56	3.161** (p=0.01)
		Private	250	210.29	10.59	

it is revealed that, the calculated ‘t’ v Teacher Effectiveness of government and private school Teachers with reference to dimensions namely –Preparation for Teaching and Planning, Classroom Management, Knowledge of Subject matter, Teacher Characteristics and Interpersonal relations are significant at 0.01 level . The t-value for government and private Teachers with respect to overall teacher effectiveness is found to be 3.161, which is significant at 0.01 Level. Therefore, Sub hypothesis–IIc is rejected. Hence, it is concluded that there is significant difference between government and private school Mathematics

Teachers in their Teacher Effectiveness. Government mathematics teachers is more teacher effectiveness than private school teachers.

**Table – 2: Mean, Standard Deviation and t-values Teacher Effectiveness of English and Telugu medium secondary school Mathematics Teachers**

S. No.	Dimension wise Teacher Effectiveness	Medium of Instruction	N	Mean	S.D	t-Value
1	Preparation for teaching and planning	Telugu	200	38.49	1.88	1.10@ (p=0.003)
		English	250	38.28	1.91	
2	Classroom management	Telugu	200	44.06	2.34	1.61 @ (p=0.001)
		English	250	43.72	2.39	
3	.Knowledge of subject matter	Telugu	200	33.21	1.21	1.29@ (p=0.02)
		English	250	32.99	1.22	
4	Teacher characteristics	Telugu	200	56.62	1.48	1.09@ (p=0.001)
		English	250	56.39	1.42	
5.	Interpersonal relations	Telugu		37.12	1.71	1.53@ (p=0.101)
		English		36.92	1.72	
6	Medium of Instruction	Telugu	200	212.24	9.50	1.2@ (p=0.027)
		English	250	211.16	9.49	

Note: \*\* t value Significant at 0.01 level  
 \* t value Significant at 0.05 level  
 @ t value not significant at 0.05 level

From the Table-4.21 it is revealed that, the calculated ‘t’ value of Teacher Effectiveness of Telugu and English medium school Mathematics Teachers with reference to dimensions namely - Preparation for Teaching and Planning, Classroom Management, Knowledge of Subject matter, Teacher Characteristics and Interpersonal relations are not significant at 0.05 level . The t-value for Telugu and English medium school Mathematics Teachers with respect to overall Teacher Effectiveness is found to be 1.2, which is not significant at 0.05 Level. Therefore, Sub hypothesis-II<sub>D</sub> is accepted. Hence, it is concluded that there is no significant difference between Telugu and English medium school Mathematics Teachers in their Teacher Effectiveness.

**Findings:**

To find out the Teaching Effectiveness of the of the secondary school mathematics teachers w.r.to. namely –Type of Management, Medium of instruction.

**Educational Implication:**

- Teachers are the nation builders and no society can survive without good teachers. Teachers have always enjoyed respectable status in the society.
- The teachers may try to acquaint themselves with novel strategies of teaching as it is an important factor in the teaching - learning process.

- Teacher educators may apply integration of technology while they give training to pre-service teachers that they can effectively adopt them when they enter the career.
- To achieve maximum teacher effectiveness the teachers are motivated by the school principals, in attending various in-service training, workshops, conferences and seminars etc.

**SUGGESTIONS FOR FURTHER STUDY:**

- Similar studies can be carried out at primary and other fields of higher level teachers.
- Due to limited Period study has been done by talking small sample. If sample would be in larger scale then interpretation of the result would be in better way

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