



Teaching effectiveness of secondary school Teachers

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Abstract

The primary objective of this research paper is to assess the teaching effectiveness of secondary school teachers concerning their Gender, Location of School, and the Type of School they work in. To achieve this goal, a survey approach was employed. The data collection tool utilized in this study is Teaching Effectiveness Scale (TES) developed by Dr. Subhash Sarkar and Abhijit Deb, specifically designed for gathering data from secondary school teachers. A randomly selected sample of 200 secondary school teachers from the Birbhum district in West Bengal participated in this research. To scrutinize and interpret the collected data, various statistical techniques, including mean (average), standard deviation (variability), and t-tests (statistical comparisons), were employed. In the present study, the level of Effectiveness of Secondary School Teachers has been found above average. The findings of this study also revealed that there was no statistically significant difference between the effectiveness of male and female secondary school teachers. However, a notable difference was observed in the effectiveness of urban and rural secondary school teachers, indicating that location plays a significant role in teaching effectiveness. Moreover, the research demonstrated a significant difference in teaching effectiveness among secondary school teachers based on the type of school.

Keywords: Effectiveness, secondary, teacher, gender, location of school, survey

Introduction

Teaching is considered to be an act by which knowledge is imparted on students in a classroom setting. While teaching has been an integral activity of the human civilization since time immemorial, its definition has evolved over time. In the present times, teaching refers to creation of situations which is conducive to learning which would enable the learners to learn something new and the teacher to impart a new set of knowledge. It is strongly believed that nobody can directly teach another person anything but can only create an environment which would facilitate the process via which the teaching-learning process can take place. Along these very lines comes up the importance of effective teaching which analyses and tries to judge if the entire teaching process at play is actually beneficial for the learners.

Every teaching process has its own set of objectives and aims based on which we gauge its effectiveness. The biggest reason why effectiveness becomes such a mandatory prerequisite is due to the ultimately limit to the resources being used in education – human and non-human resources. It becomes vitally important to ensure that the teaching process becomes as effective as possible. Effective teaching is the fulfillment of the goals which are planned while formulating a teaching-learning plan but broadly, effective teaching has different dimensions. According to Raba (2017)^[9], effective teaching has direct interrelationship with the educators' personalities. In a study conducted in the Gulf, Raymond (2008)^[10] concluded that effective university professor as a person who: (1) is appreciative, (2) makes classes interesting, (3) is fair (4) cares about students' success, (5) shows a love for their subject, (6) is friendly, (7) encourages questions and discussion, (8) is always well prepared and organized, and (9) simplifies their materials. The key factor, however, remains the teacher's personality.

To some extent this agrees with Chickering and Gamson (2006)^[4] and Hiebert & Grouws, (2007)^[7] who argued that effective teachers have an impact on students' progress which could be looked upon as a relation between theory development and empirical work. In regard to feedback and evaluation, some researchers believe that an effective teacher is who consistently achieves goals that are related either directly or indirectly to students' outcomes (Anderson, 2004^[11]; Sojka & Deeter-Schmetz, 2002^[11]; Chen & Hoshower, 2003)^[3]. On the other hand, other researchers Hativa, 1995^[6]; Gallagher, 2000^[5], Sojka, & Deeter-Schmetz, 2002^[11] and Bain, 2004)^[2] showed that most faculties do pay attention to students' feedback. Hobson & Talbot, (2001)^[8] added in the area of evaluation and its importance saying that data used for evaluation should be decided by various stakeholders, including administrators, faculty and students, should collaborate in determining a proper evaluation system. So, we can conclude that there is no one definite way to measure or determine effectiveness of teaching. Rather, true effectiveness is essentially an amalgamation of many factors – some which are integral parts of the educators and other, which are associative with the educator.

Objectives of the Study

Following objectives were identified for this particular study–

O₁: To study the level of Teaching Effectiveness of Secondary School Teachers.

O₂: To compare Teaching Effectiveness of Secondary School Teachers under different demographical variables like Gender (Male and Female), Location of School (Rural and Urban) and Types of School (Government and Private).

Research Question & Hypotheses

Drawing from the knowledge acquired through a comprehensive review of both Indian and foreign literature, the researchers has formulated the following research questions and hypotheses, organized according to specific research objectives:

For Objective O₁ following research question has been formed –

RQ₁:What is the level of Teaching Effectiveness of Secondary School Teachers?

For Objective O₂ following research hypotheses have been formed –

H_{o1}:There would be no significant difference in Teaching Effectiveness between Male and Female teachers at Secondary Level.

H_{o2}:There would be no significant difference in Teaching Effectiveness between the teachers of Rural school and Urban school at Secondary Level.

H_{o3}: There would be no significant difference in Teaching Effectiveness between the teachers of Government school and Private school at Secondary Level.

Delimitations of the Study

- This study is delimited within Birbhum district only.
- This study is delimited to 200 teachers only.
- This study is delimited to Gender, Location of the School and Type of School only.

Methodology of the Study

Population: All the teachers of secondary schools of West Bengal were considered as the population of the study by the researcher.

Sample: The sample were selected randomly from the different schools of Birbhum district. A total of 10 schools from Urban (Municipality) and Rural (Panchayat) areas of Birbhum district were chosen randomly. A total number of 200 teachers of secondary schools under West Bengal Board of Secondary Education (WBBSE) were selected as sample for this study.

Variables

The researchers in this study have identified two distinct categories of variables

- A. Major Variable:** Teaching Effectiveness
- B. Demographical Variables**
 - **Gender:** Male and Female
 - **Location of School:** Urban and Rural
 - **Types of School:** Government and Private

Tool Used

Teaching Effectiveness Scale (TES) developed by Subhash Sarkar and Abhijit Deb used by the researchers for this

research. This scale consisted of 40 items divided into Four Dimensions— (I) Preparation, (II) Presentation, (III) Application and (IV) Management. It was administered on 300 Secondary School Teachers. The reliability of the scale was estimated by split-half (odd-even) method and with a view to gender categories of teachers. The coefficient of correlation based on the calculation of split half data. The validity of teaching effectiveness scale was calculated on the basis of face validity. The scale was presented before more than 10 experts in the field to judge the relevancy of the test items. In case of selection and elimination of statements/items cent percent agreement of the experts was taken as the criteria. The validity of teaching effectiveness scale was also estimated by item analysis on the first draft of the scale by finding out 'f- differences between the mean and of the high scoring group (30%) and low scoring group (30%). On this basis 't' results the elimination of the items was made. Accordingly valid items were selected for final form of scale. Therefore, it can safely be said that the Teaching effectiveness scale is a valid one.

Data Collection Procedure

In order to conduct this research, data was gathered using a survey technique. A total of ten schools located in Birbhum district were chosen as the study's sample. Teaching Effectiveness Scale (TES) was administered to a total of 200 teachers selected from these schools. Each teacher was requested to respond to the survey questions based on their personal beliefs and thoughts, without conferring with other teachers.

Descriptive Statistics of raw data collected

Table 1: Descriptive Statistics

Statistics	Teaching Effectiveness
Minimum	103
Maximum	179
Mean	143.78
Median	144.00
Mode	151
Standard Error of Mean	.787
Std. Deviation	14.632
Variance	214.092
Skewness	-.033
Kurtosis	-.165

Research Question and Hypotheses-wise Analysis of Data

1. Analysis of Data with respect to Objective 1

O₁: To study the level of Teaching Effectiveness of secondary school teachers

For fulfillment of the above mentioned objective, one research question was formulated and tested which was as follows:

RQ₁: What is the level of Teaching Effectiveness of secondary school teachers?

Table 2: Level of Teaching Effectiveness Entire Sample

Variable	Mean	SD	Minimum Score	Maximum Score	No. of sample above Mean	No. of sample below Mean
Teaching Effectiveness	143.78	14.6	103	179	114	86

Interpretation

From the Table 2, it is shown that mean score of Teaching Effectiveness of 200 teachers was found 143.78 and Standard Deviation (SD) was 14.6. The minimum score of Teaching Effectiveness Scale (TES) was 103 and maximum score of this scale was 179. The number of teachers above means score was found 114 and the number of teachers below means score was found 86. So, it is said that the level of teaching effectiveness of Secondary School Teachers is above average.

2. Analysis of Data with respect to Objective

O₂: To compare Teaching Effectiveness of secondary school teachers under different demographical variables like Gender (Male and Female), Location of School (Rural and Urban) and Types of School (Government and Private).

For fulfillment of the above mentioned objective, three null hypotheses were formulated and tested which were as follows:

Ho₁: There would be no significant difference in Teaching Effectiveness between Male and Female teachers at Secondary Level.

Ho₂: There would be no significant difference in Teaching Effectiveness between the teachers of Rural school and Urban school at Secondary Level.

Ho₃: There would be no significant difference in Teaching Effectiveness between the teachers of Government school and Private school at Secondary Level.

Testing of H₀₁

Groups: Male and Female Teachers

Table 3: Group Statistics TES_Gender

	Gender	N	Mean	Std. Deviation	Std. Error mean
Teaching Effectiveness	Male	115	142.68	13.742	0.926
	Female	85	145.69	15.945	1.421

(TES = Teaching Effectiveness Scale)

Table 4: Independent Samples Test of TES Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Teaching Effectiveness	Equal variances assumed	5.571	0.632	-1.847**	198	0.066

(**not significant at 0.05 level of significance)

Interpretation

From the analysis in Table 4, it is seen that in case of Levene's Test for equality of variances the calculated p value is 0.632 (p>.05). So, equal variance can be assumed. Table 4 also shows that in case of comparison of mean scores of Teaching Effectiveness between Male and Female teachers the calculated t₍₁₉₈₎ value is 1.847 and 'p' value is

0.066 (p>.05). Hence, t is not significant at 0.05 level. So, H₀₁ is not rejected and it can be inferred that male teachers are not significantly different from female teachers in respect to Teaching Effectiveness.

Testing of H₀₂

Groups: Teachers of Rural school and Urban school

Table 5: Group Statistics TES_Location of School

	Location of School	N	Mean	Std. Deviation	Std. Error Mean
Teaching effectiveness	Rural	105	146.05	15.326	0.998
	Urban	95	138.90	11.664	1.112

(TES = Teaching Effectiveness Scale)

Table 6: Independent Samples Test of TES_Location of School

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Teaching effectiveness	Equal variances assumed	7.582	0.412	4.341#	198	0.000

(# significant at 0.05 level of significance)

Interpretation

From the analysis in Table 6, it is seen that in case of Levene's Test for equality of variances the calculated p value is 0.412 (p>.05). So, equal variance can be assumed. Table 6 also shows that in case of comparison of mean scores of Teaching Effectiveness between Teachers of Rural school and Urban school the calculated t₍₁₉₈₎ value is

4.341 and 'p' value is 0.000 (p<.05). Hence, t is significant at 0.05 level. So, H₀₂ is rejected and it can be inferred that Rural school teachers are significantly different from Urban school teachers in respect to Teaching Effectiveness.

Testing of H₀₃

Groups: Government and Private School Teachers

Table 7: Group Statistics TES Types of School

	Types of School	N	Mean	Std. Deviation	Std. Error Mean
Teaching Effectiveness	Government	108	144.94	14.651	0.958
	Private	92	141.34	14.351	1.356

(TES = Teaching Effectiveness Scale)

Table 8: Independent Samples Test of TES_Types of School

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Teaching Effectiveness	Equal variances assumed	0.414	0.520	2.156#	198	0.032

(# significant at 0.05 level of significance)

Interpretation

From the analysis in Table 8, it is seen that in case of Levene's Test for equality of variances the calculated p value is 0.520 ($p > .05$). So, equal variance can be assumed. Table 8 also shows that in case of comparison of mean scores of Teaching Effectiveness between Government and Private School Teachers the calculated $t_{(198)}$ value is 2.156 and 'p' value is 0.032 ($p < .05$). Hence, t is significant at 0.05 level. So, H_0 is rejected and it can be inferred that Government School Teachers are significantly different from Private School Teachers in respect to Teaching Effectiveness.

Conclusion

Teaching effectiveness stands as a crucial benchmark for assessing the quality of education. Effective teaching plays a pivotal role in simplifying and enhancing the learning process. When students receive proper guidance from their teachers, they can grasp and retain knowledge more efficiently. Thus, it's not solely the higher academic qualifications of a teacher that guarantee effective teaching. Professional skills, alongside attitudes towards the teaching profession and relationships with students, are equally vital components of effective teaching. This study has led to the conclusion that teaching effectiveness is independent of teachers' gender. However, it also reveals that rural teachers tend to be comparatively more effective in their teaching compared to their urban counterparts. Additionally, the effectiveness of government school teachers surpasses that of private school teachers. Future researchers can delve further into this subject, exploring the underlying reasons for the differences in teaching effectiveness between rural and urban teachers. Moreover, they can investigate additional factors that might impact teaching effectiveness, thereby expanding our understanding of this critical aspect of education.

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