

# Teacher Competence of Teachers Teaching Secondary Class Students in Relation to Institutional Effectiveness

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## ABSTRACT:

The study brings in limelight the differences in the Teacher Competence of teachers in high effective schools and low effective schools. 174 CBSE Schools of Punjab State were taken as a sample. 10 teachers teaching secondary classes from each institution were selected randomly. Institutional Effectiveness Scale is administered to every institute. After that by applying Kelley's 27% criterion, no. of high and low effective schools were 47 respectively. The study found that teacher competence in high effective institutes is higher than the low effective institutes. Female teachers are less competent as compared to male teachers in low effective institutes. In case of high effective institutes, male teachers are less competent than female teachers.

## Keywords:

Teacher Competence, Professional Commitment, Institutional Effectiveness

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## 1. INTRODUCTION

The quality of an educational institute is determined by the quality of teaching. Teacher has a very prominent place in his/her institute. A team of quality teachers can help in making the institute effective. Teacher is helpful in arousing enthusiasm among the students. Teacher can inspire the students for learning. Teacher can sharpen the intelligence of the students and make them wise. It can be possible only if the teacher is highly committed towards his/her profession. Moreover, He/She should be competent in transacting the curriculum in the class. In today's era, the aims and objectives of the education change very rapidly. Therefore, it poses a challenge for the teachers to be competent in all fields of education. In addition to it, only competency in all fields of education will not work if the teachers are not dedicated towards their profession. Effective education can be achieved only if the competency and commitment both will work side by side.

### Teacher Competence

The Australian Institute for Teaching and School Leadership (2011) proposed 7 key standards for teacher educators to be effective.<sup>1</sup> Mustafa (2013) revealed that difference in mastery of professional

competency in relation to gender was significant<sup>2</sup>. Sain et al. (2014) investigated that the difference between veteran teacher and novice teacher in terms of teaching competency was significant<sup>3</sup>. Akram & Anwar (2015) found that relationship between teacher competence and professional commitment was positive<sup>4</sup>. Naz (2016) indicated that the difference found in the professional commitment of teachers in relation to gender was significant. Moreover, the difference found in male and female students' achievements scores was significant<sup>5</sup>. Sijila & Nalinilatha (2017) indicated that difference found in teaching competency of secondary school teachers was not significant<sup>6</sup>. Kattuk et al. (2019) found that teachers having background of Elementary School Teacher Education were competent than others<sup>7</sup>. Bhattacharjee & Carri (2020) indicated no significant association of English teaching competency of T.B.S.E. (Tripura Board of School Education) teachers with respect to the locale and gender<sup>8</sup>. Bruhwiler & Franziska (2020) revealed that students' achievement bears significant positive effect of adaptive teaching competency<sup>9</sup>.

### Institutional Effectiveness

Hook (2006) indicated that when teacher leadership played a role on these campuses there

was an expectation by school administrators that teachers would be leaders<sup>10</sup>. Ghani et al. (2011) found that excellent schools in Malaysia have better implementation of effective school practices at very often level compared to the excellent schools in Brunei. Further, he found that there is a significant correlation between principal leadership with successful practices of school effectiveness and improvement in excellent schools in Malaysia and Brunei<sup>11</sup>. Loeb et al. (2012) found that more effective schools are able to attract and hire more effective teachers from other schools when vacancies arise, schools assign novice teachers to students in a more equitable fashion, more effective schools are better able to retain higher-quality teachers<sup>12</sup>. Bolanle (2013) found that secondary school principals in south western Nigeria possessed technical, interpersonal, conceptual and administrative skills. A significant relationship was found between principals' leadership skills and school effectiveness<sup>13</sup>. Das et al. (2014) investigated that school effectiveness is a partly culturally independent and partly culturally dependent<sup>14</sup>. Panigrahi (2014) found that the school effectiveness and classroom teaching are unrelated or independent<sup>15</sup>. Balani (2015) found that the perceptions of Teachers of CBSE Board schools in relation to school effectiveness of their schools are better than SSC Board schools<sup>16</sup>. Ali (2017) validated thirteen sub-dimensions to assess school effectiveness. Among these sub-dimensions, the most preferred dimension of school effectiveness is quality assurance<sup>17</sup>. Ramberg et al. (2018) revealed that all three aspects of school effectiveness ('school leadership', 'teacher cooperation and consensus', and 'school ethos') were predictive of higher levels of perceived teacher caring among students<sup>18</sup>.

### Statement of the problem

TEACHER COMPETENCE OF TEACHERS TEACHING SECONDARY CLASS STUDENTS IN RELATION TO INSTITUTIONAL EFFECTIVENESS

### Objectives of the study

1. To develop a tool for assessing Institutional Effectiveness.

2. To develop a tool for assessing Teacher Competence.
3. To study Teacher Competence in relation to Institutional Effectiveness and gender of teachers.

### Hypotheses of the study

1. There exists no significant difference in the teacher competence of teachers in institutions with high and in the institutions with low effectiveness.
2. There exists no significant difference in the teacher competence of male and female teachers.
3. There exists no significant interaction between institutional effectiveness and gender of teachers on the scores of teacher competence.

### Delimitation of the study

1. The study has been delimited to the CBSE schools of Jalandhar, Kapurthala, Amritsar, Ludhiana, Gurdaspur and Hoshiarpur districts of Punjab.
2. Data has been collected from teachers teaching secondary classes only.

### Sample

There are total 1350 CBSE schools in state of Punjab. By applying Cochran's formula for calculating sample size, 174 schools have been selected for the purpose of data collection. Out of these 174 schools, by applying 27% Kelley's criterion, no. of high and low effective schools was 47 respectively. From every school, 10 teachers teaching secondary classes have been selected randomly.

### Tools used

1. Institutional Effectiveness Scale prepared by the investigator.
2. Teacher Competence Scale prepared by the investigator.

### Procedure of the study

Institutional Effectiveness has been treated as an independent variable and used for the purpose of classification only. The same design has been replicated on the scores of Teacher Competence which has been studied as dependent variable. For

the purpose of present investigation, Institutional Effectiveness Scale was administered to 174 selected CBSE schools. Further, data regarding Teacher Competence were collected from teachers of selected high effective and low effective CBSE schools.

**Analysis and interpretation of data**

**2X2 Analysis of Variance on the Scores of Teacher Competence with regard to Institutional Effectiveness and Gender of the School Teachers**

The descriptive statistics (means and standard deviations) for 2x2 ANOVA on the scores of teacher competence with regard to Institutional Effectiveness and gender have been calculated and are presented below in the Table no.

**TABLE- 1**

**MEANS AND STANDARD DEVIATIONS OF SUB GROUPS FOR 2X2 ANOVA ON THE SCORES OF TEACHER COMPETENCE WITH REGARD TO INSTITUTIONAL EFFECTIVENESS AND GENDER**

Teacher Competence		High effective Institutes	Low effective Institutes	Total
	<b>Male</b>	M <sub>1</sub> =302.48 σ = 20.39 N= 176	M <sub>2</sub> =193.41 σ = 15.20 N= 132	M = 255.74 σ = 57.08 N = 308
<b>Female</b>	M <sub>3</sub> =300.09 σ = 5.22 N= 294	M <sub>4</sub> =203.36 σ = 9.34 N= 338	M= 248.36 σ = 48.89 N= 632	
<b>Total</b>	M=300.98 σ = 13.17 N= 470	M=200.57 σ = 12.13 N= 470		

To analyze the variance in the scores of Teacher Competence with regard to Institutional effectiveness and gender of the teachers, ANOVA has been calculated on the obtained score and presented below in the Table no.2:

**TABLE- 2**

**FOR 2X2 DESIGN ON THE SCORES OF TEACHER COMPETENCE IN RELATION TO INSTITUTIONAL EFFECTIVENESS AND GENDER OF THE TEACHERS**

Source of variation	SS	Df	MSS	F	P-value
Institutional Effectiveness (A)	2158849.280	1	2158849.280	14389.173	.000*
Gender (B)	2910.40	1	2910.40	19.39	.000*
Interaction (AxB)	7760.159	1	7760.159	51.17	.000*
Total	61636664	940			

\* Significant at the 0.05 level of confidence

**MAIN EFFECTS**

**INSTITUTIONAL EFFECTIVENESS (A)**

It is reflected from the Table no. 2 that the p-value for difference between means of institutions with high effectiveness and institutions with low effectiveness on the scores of teacher competence was turned out significant at 0.05 level of confidence. So it suggests that the difference in the teacher competence of high effective institutes and low effective institutes is significant. Therefore, Hypothesis (1) namely “There exists no significant difference in the teacher competence of institutions with high and in the institutions with low effectiveness” is rejected.

**GENDER (B)**

It is reflected from the Table no. 2 that the p-value for difference between means of male and female teachers on the scores of teacher competence was turned out significant at 0.05 level of confidence. So it suggests that difference in the teacher competence of male and female teachers is significant. Therefore, Hypothesis (2) namely “There is no significant difference in the teacher

competence of male and female teachers” is rejected. Mustafa (2013) revealed that professional competency in relation to gender has significant difference<sup>11</sup>.

**TWO ORDER INTERACTION (AXB)**

**INSTITUTIONAL EFFECTIVENESS (A) X GENDER (B)**

It is shown from the Table no. 2 that p-value for the interaction between the institutional effectiveness and gender of teachers on the scores of teacher commitment was turned out significant at 0.05 level of confidence. So it suggests that interaction between institutional effectiveness and gender of teachers on the scores of teacher commitment is significant. Therefore, the data supports not to accept the Hypothesis (3) namely “There is no significant interaction between Institutional Effectiveness and gender of teachers on the scores of teacher competence.”

Further, to analyze the significance of difference in various cells due to which F-ratios are found to be significant, t-ratios have been computed and presented in the Table-3:

**TABLE- 3****t - RATIOS FOR THE DIFFERENCE IN THE MEANS OF VARIOUS CELLS OF “TEACHER COMPETENCE” IN RELATION TO INSTITUTIONAL EFFECTIVENESS AND GENDER OF TEACHERS**

CELLS	D	SE	t- Ratio
M <sub>1</sub> -M <sub>2</sub>	109.06	2.11	51.62*
M <sub>1</sub> -M <sub>3</sub>	9.94	1.15	8.582*
M <sub>1</sub> -M <sub>4</sub>	106.67	0.99	107.19*
M <sub>2</sub> -M <sub>3</sub>	99.11	1.31	75.48*
M <sub>2</sub> -M <sub>4</sub>	2.39	1.25	1.910
M <sub>3</sub> -M <sub>4</sub>	96.92	0.614	157.410*

\* Significant at the 0.05 level of confidence

It is reflected from Table no. 3 that the attained value of t-ratios for the difference between means M<sub>1</sub>-M<sub>2</sub>, M<sub>1</sub>-M<sub>3</sub>, M<sub>1</sub>-M<sub>4</sub>, M<sub>2</sub>-M<sub>3</sub>, and M<sub>3</sub>-M<sub>4</sub> have been turned out significant at the 0.05 level of confidence. Further, the analysis of mean table suggests that the teacher competence of male teachers in high effective institute is higher than the male teachers in low effective institutes. It also suggests that teacher competence of male teachers in high effective institutes is lower than the female teachers in high effective institutes. Moreover, it reveals that the teacher competence of female teachers in high effective institutes is higher than the female teachers in low effective institutes. It is also clearly shown above that the teacher competence of male teachers in low effective institutes is lower than female teachers in high effective institutes. In addition, it reveals that the teacher competence of female teachers in high effective institutes is higher than female teachers in low effective institutes.

### Discussion on findings

Gracious & Annaraja (2011) investigated the relationship between creativity and teaching competency of teachers. Similarly, Nbina (2012) investigated the relationship between teachers' competence and academic achievement of students. The analysis of teacher competence in relation to school effectiveness has never been established before. Therefore, the present study

analyzed the teacher competence in high effective and low effective institutes. It has been observed in the present study that teacher competence in high effective institutes is higher than the low effective institutes. As far as gender is concerned, female teachers have more competence as compared to male teachers in case of high effective institutes. This result is in tune with the findings of Mustafa (2013). He revealed professional competency of male and female teachers has significant difference<sup>11</sup>. Findings of the present study will not only be useful to future researchers but will also be helpful to the teachers, administrators and schools for framing new policies on teaching standards.

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