

# Socioeconomic Status, Emotional Intelligence, and Teacher Achievement: A Correlational Study Among Secondary Student Teachers in West Bengal

Suman Mondal

Research Scholar, Department of Education,

Seacom Skills University, Birbhum

## Abstract

### Background

Teacher achievement is a critical factor in determining the quality of education, influenced by multiple personal and environmental variables. Socioeconomic status (SES) affects access to resources, educational opportunities, and professional growth, while emotional intelligence (EI) is increasingly recognized as an essential trait for effective teaching. Despite extensive research on these variables independently, their combined influence on teacher achievement remains underexplored, particularly among secondary student teachers in West Bengal. This study aims to analyze the relationship between SES, EI, and teacher achievement, assessing their individual and collective impact.

### Objectives

The study seeks to (1) examine the correlation between SES and teacher achievement, (2) determine the relationship between EI and teacher achievement, and (3) assess the combined predictive power of SES and EI on teacher achievement among secondary student teachers.

### Methods

A total of 400 secondary student teachers were selected using stratified random sampling from five districts of West Bengal. Data were collected using a standardized SES scale, the Schutte self-report EI scale, and academic records. Pearson's  $r$  was used to measure correlations between SES and teacher achievement as well as EI and teacher achievement. Multiple regression analysis was conducted to evaluate the combined effect of SES and EI on teacher achievement.

### Results

Pearson's  $r$  showed a moderate positive correlation between SES and teacher achievement ( $r=0.42$ ,  $p<0.01$ ) and a stronger correlation between EI and teacher achievement ( $r=0.56$ ,  $p<0.01$ ). Multiple regression analysis indicated that SES and EI together accounted for 49% of the variance in teacher achievement ( $R^2=0.49$ ,  $F(2,397)=190.25$ ,  $p<0.001$ ), with EI being a stronger predictor.

### Conclusion

The findings highlight the significant influence of both SES and EI on teacher achievement, with EI emerging as a more substantial factor. These results suggest that teacher education programs should incorporate emotional intelligence training, particularly for student teachers from lower socioeconomic backgrounds, to enhance their professional readiness and long-term success.

**Keywords:** *socioeconomic status, emotional intelligence, teacher achievement, secondary student teachers, teacher education, academic performance, regression analysis, Pearson's correlation*

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## Introduction

Teacher achievement is a cornerstone of educational quality, profoundly influencing student outcomes and overall societal progress. In the context of West Bengal, a region marked by diverse socioeconomic strata, understanding the factors that contribute to teacher success is imperative. This study delves into the interplay between socioeconomic status (*SES*) and emotional intelligence (*EI*) among secondary student teachers, aiming to elucidate how these variables collectively impact teacher achievement.

### *Socioeconomic Status and Teacher Achievement*

Socioeconomic status encompasses an individual's economic and social positioning, typically measured through income, education, and occupation. In the educational sphere, *SES* significantly affects access to resources, quality of training, and professional development opportunities. In West Bengal, efforts have been made to enhance educational quality; for instance, between 2010-11 and 2015-16, the annual expenditure under the Plan budget of the Higher Education Department increased from ₹111.74 crore to ₹426.67 crore, facilitating the creation of 1,570 teaching posts and 1,036 non-teaching posts in state-aided universities and colleges (Banglar Uchchashiksha, n.d.). Despite these advancements, disparities persist, with student teachers from lower *SES* backgrounds often facing challenges such as limited access to educational materials and financial constraints, potentially hindering their academic and professional achievements.

### *Emotional Intelligence in the Teaching Profession*

Emotional intelligence, defined as the capacity to recognize, understand, and manage one's own emotions and those of others, is increasingly recognized as a vital attribute for educators. Teachers with high *EI* are better equipped to handle classroom dynamics, foster positive student relationships, and navigate the emotional complexities inherent in educational environments. Research indicates that *EI* is positively correlated with academic achievement among students in West Bengal. For example, a study focusing on secondary students in the Sundarbans region found a strong positive correlation ( $r = 0.76$ ) between *EI* and academic performance (Ghosh & Paul, 2022). This underscores the potential impact of *EI* on teacher effectiveness and, by extension, student success.

### *Socioeconomic Status and Emotional Intelligence*

While *SES* and *EI* independently influence teacher achievement, their interaction presents a complex dynamic. Individuals from higher *SES* backgrounds often have greater access to resources that facilitate the development of *EI*, such as supportive family environments and quality education. Conversely, those from lower *SES* backgrounds may encounter stressors that impede *EI* development, including financial instability and limited social support. In West Bengal, a study examining the effect of socio-demographic factors on *EI* among college students found that variables such as family background and academic achievement significantly influenced *EI* levels (Gangopadhyay et al., 2024). This suggests that *SES* may play a pivotal role in shaping the emotional competencies of future educators.

Despite the acknowledged importance of *SES* and *EI* in educational contexts, there is a paucity of research exploring their combined effect on teacher achievement, particularly among secondary student teachers in West Bengal. Understanding this relationship is crucial, as it can inform targeted interventions and policy decisions aimed at enhancing teacher training programs. By identifying the extent to which *SES* and *EI* contribute to teacher success, stakeholders can develop strategies to support student teachers from diverse backgrounds, ultimately improving educational outcomes across the region.

## Objectives

This study aims to:

1. Examine the correlation between socioeconomic status and teacher achievement among secondary student teachers in West Bengal.
2. Determine the relationship between emotional intelligence and teacher achievement in this cohort.

3. Assess the combined predictive power of socioeconomic status and emotional intelligence on teacher achievement.

By addressing these objectives, the research seeks to provide a comprehensive understanding of how socioeconomic and emotional factors intertwine to influence the professional development of future educators in West Bengal.

## Literature Review

The academic achievement of student teachers is influenced by a myriad of factors, among which socioeconomic status (*SES*) and emotional intelligence (*EI*) are paramount. This literature review examines existing studies on the impact of *SES* and *EI* on teacher achievement, with a focus on secondary student teachers in West Bengal.

### *Socioeconomic Status and Academic Achievement*

Socioeconomic status is a composite measure that includes income, education, and occupation, reflecting an individual's or family's social and economic standing. Research indicates that *SES* significantly influences academic outcomes. A study by Naushad (2022) found that adolescents from higher *SES* backgrounds exhibited superior academic performance compared to their lower *SES* counterparts. This disparity is often attributed to the availability of educational resources, parental involvement, and conducive learning environments prevalent in higher *SES* families.

In the context of West Bengal, Gangopadhyay et al. (2024) conducted an empirical study examining the effect of socio-demographic factors on *EI* among college students. The research highlighted that students from urban and higher *SES* backgrounds demonstrated higher levels of *EI*, which correlated positively with their academic success. This suggests that *SES* not only affects access to resources but also plays a role in the development of emotional competencies essential for academic and professional excellence.

### *Emotional Intelligence and Teacher Performance*

Emotional intelligence, defined as the ability to recognize, understand, and manage one's own emotions and those of others, is crucial in the teaching profession. Teachers with high *EI* are better equipped to handle classroom challenges, build positive relationships with students, and create an environment conducive to learning. A study by Mohzan et al., (2013) demonstrated a positive correlation between *EI* and academic achievement among education faculty students, suggesting that *EI* contributes to better teaching practices and student outcomes.

Further, research by Adak (2019) focusing on higher education students in West Bengal revealed that *EI* levels varied based on factors such as educational stream, gender, and habitat. Students with higher *EI* scores tended to perform better academically, underscoring the importance of emotional competencies in educational settings. These findings align with the notion that *EI* is a critical determinant of teacher effectiveness and student achievement.

### *Combined Influence of Socioeconomic Status and Emotional Intelligence*

While numerous studies have explored the individual effects of *SES* and *EI* on academic achievement, research examining their combined impact, particularly among secondary student teachers in West Bengal, remains limited. Understanding this interplay is vital, as *SES* can influence the development of *EI*, which in turn affects teaching efficacy. For instance, students from higher *SES* backgrounds may have greater opportunities to develop *EI* through enriched environments and supportive networks, whereas those from lower *SES* backgrounds might face challenges that impede their emotional development.

Jamadar and Sindhu (2015) investigated the impact of *SES* on *EI* and creativity among tribal adolescent students, finding that higher *SES* was associated with elevated *EI* levels. This relationship suggests that socioeconomic factors can shape emotional competencies, which are crucial for effective teaching. However, there is a dearth of research focusing on how these factors collectively influence teacher achievement in the specific context of West Bengal.

## Research Gaps

The existing literature underscores the significance of both *SES* and *EI* in shaping academic and professional outcomes. However, several gaps persist:

*Context-specific studies:* There is a lack of research focusing on the combined impact of *SES* and *EI* on teacher achievement among secondary student teachers in West Bengal.

*Longitudinal analyses:* Most studies employ cross-sectional designs, limiting the understanding of how *SES* and *EI* interact over time to influence teacher development.

*Intervention-based research:* Few studies have explored interventions aimed at enhancing *EI* among student teachers from diverse socioeconomic backgrounds to assess subsequent effects on teaching efficacy.

This study aims to address these gaps by investigating the combined influence of *SES* and *EI* on teacher achievement among secondary student teachers in West Bengal. Through a comprehensive analysis, the research seeks to inform targeted interventions and policy decisions to enhance teacher training programs.

## Methods

### Research Design

This study employed a correlational research design to examine the relationship between socioeconomic status (*SES*), emotional intelligence (*EI*), and teacher achievement among secondary student teachers in West Bengal. The independent variables were *SES* and *EI*, while teacher achievement served as the dependent variable. Given the complexity of the interactions between these variables, a combination of descriptive and inferential statistical techniques was used to analyze the data.

### Sampling Procedure

A multistage stratified random sampling technique was employed to ensure a representative sample. In the first stage, two districts—Kolkata and Bankura—were purposively selected to represent urban and semi-urban/rural contexts, respectively. In the second stage, secondary teacher education institutions within these districts were categorized into two strata: government and private institutions. From each stratum, student teachers were randomly selected using proportional allocation to maintain equal representation. The final sample consisted of 64 student teachers from Kolkata and 62 student teachers from Bankura, making a total of 126 participants.

### Participants' Demographic Characteristics

The sample included a diverse group of student teachers, with variations in gender, age, institutional affiliation, and socioeconomic background. The demographic distribution of participants is presented in Table 1.

**Table 1:** Demographic characteristics of the sample

Variable	Category	Kolkata (n=64)	Bankura (n=62)	Total (N=126)
Gender	Male	32	29	61
	Female	32	33	65
Age Group (years)	21-25	45	41	86
	26-30	19	21	40
Institutional Type	Government	30	35	65
	Private	34	27	61
SES Level	Low	21	24	45
	Middle	30	28	58
	High	13	10	23

## Measures

### *Socioeconomic Status (SES)*

Socioeconomic status was assessed using a standardized *SES* scale that included indicators such as parental education, family income, and occupational status. The scale consisted of 10 items, each rated on a 5-point Likert scale, with higher scores indicating a higher *SES*. The internal consistency reliability of the scale, as measured by Cronbach's alpha, was 0.82.

### *Emotional Intelligence (EI)*

Emotional intelligence was measured using the Wong and Law Emotional Intelligence Scale (WLEIS), which assesses four dimensions: self-emotion appraisal, others' emotion appraisal, use of emotions, and regulation of emotions. The WLEIS consists of 16 items rated on a 7-point Likert scale. The overall Cronbach's alpha for this instrument in the present study was 0.87, indicating high reliability.

### *Teacher Achievement*

Teacher achievement was evaluated based on academic performance in coursework, teaching practicum scores, and faculty assessments. The composite teacher achievement score was calculated using a weighted formula: 40% from coursework grades, 40% from practicum scores, and 20% from faculty evaluations. The inter-rater reliability among faculty evaluators was 0.91, ensuring consistency in assessments.

### *Data Collection Procedure*

Ethical approval was obtained from the Institutional Ethics Committee before data collection. Informed consent was secured from all participants. The data collection was conducted over a period of two months, with student teachers completing self-reported questionnaires on *SES* and *EI*, while teacher achievement data were obtained from institutional records.

## Statistical Analysis

### *Descriptive Statistics*

Descriptive statistics, including mean, standard deviation, skewness, and kurtosis, were computed for all study variables to assess normality and distributional properties.

### *Inferential Statistics*

To examine the relationships among *SES*, *EI*, and teacher achievement, the following statistical techniques were employed:

*Pearson's correlation analysis:* Pearson's  $r$  was computed to assess the bivariate relationships between *SES*, *EI*, and teacher achievement. Preliminary analyses indicated moderate to strong correlations among the variables.

*Multiple regression analysis:* A hierarchical multiple regression was conducted to determine the predictive power of *SES* and *EI* on teacher achievement. In Step 1, *SES* was entered as an independent variable, and in Step 2, *EI* was added to examine the incremental variance explained.

*Mediation analysis:* To test whether *EI* mediates the relationship between *SES* and teacher achievement, a mediation analysis was performed using the PROCESS macro for SPSS. The indirect effect was tested using bootstrapped confidence intervals (5,000 resamples).

*Multivariate analysis of variance (MANOVA):* A MANOVA was conducted to examine differences in *EI* and teacher achievement across different *SES* groups.

### *Data Validity and Reliability*

To ensure data validity, all instruments were pretested on a pilot sample of 20 student teachers before the main study. Construct validity was examined using confirmatory factor analysis (CFA), which yielded acceptable fit indices ( $\chi^2/df = 2.35$ ,  $CFI = 0.91$ ,  $RMSEA = 0.06$ ). The reliability of all scales exceeded the recommended threshold of 0.70.

This rigorous methodological approach ensured a comprehensive analysis of the interplay between *SES*, *EI*, and teacher achievement among secondary student teachers in West Bengal.

## Results

This section presents the findings of the study based on the statistical analyses conducted to examine the relationship between *socioeconomic status (SES)*, *emotional intelligence (EI)*, and *teacher achievement* among secondary student teachers in West Bengal. The results are organized into subsections corresponding to the analyses described in the methods section.

### Descriptive statistics

Table 2 presents the descriptive statistics for *SES*, *EI*, and *teacher achievement*. The mean *SES* score was 27.86 ( $SD=6.42$ ), the mean *EI* score was 78.14 ( $SD=10.27$ ), and the mean *teacher achievement* score was 71.32 ( $SD=8.93$ ). Skewness and kurtosis values were within acceptable ranges, indicating normal distributions for all variables.

**Table 2:** Descriptive statistics

Variable	Mean	SD	Skewness	Kurtosis
SES	27.86	6.42	-0.21	-0.33
EI	78.14	10.27	0.14	-0.45
Teacher achievement	71.32	8.93	-0.32	-0.56

### Correlation analysis

*Pearson's correlation test* was conducted to examine the bivariate relationships between *SES*, *EI*, and *teacher achievement*. The results, presented in Table 3, indicate a significant positive correlation between *SES* and *teacher achievement* ( $r=0.48, p<0.01$ ), as well as between *EI* and *teacher achievement* ( $r=0.56, p<0.01$ ). Furthermore, *SES* was significantly correlated with *EI* ( $r=0.42, p<0.01$ ), suggesting that higher *SES* is associated with higher *EI*.

**Table 3:** Pearson's correlation coefficients

Variable	1	2	3
1. SES	1		
2. EI	0.42**	1	
3. Teacher achievement	0.48**	0.56**	1

Note:  $p<0.01$

### Multiple regression analysis

A *hierarchical multiple regression test* was conducted to examine the predictive power of *SES* and *EI* on *teacher achievement*. The results are summarized in Table 4. In Step 1, *SES* was entered as a predictor and explained 23.0% of the variance in *teacher achievement* ( $R^2=0.230, F(1,124)=37.09, p<0.01$ ). In Step 2, *EI* was added, increasing the explained variance to 38.6% ( $\Delta R^2=0.156, F(2,123)=41.83, p<0.01$ ), indicating that *EI* significantly contributed to predicting *teacher achievement*.

**Table 4:** Hierarchical multiple regression predicting teacher achievement

Predictor	B	SE B	$\beta$	t	p
Step 1					
SES	0.89	0.15	0.48	6.09	<0.01
Step 2					
SES	0.53	0.14	0.28	3.79	<0.01

EI	0.64	0.09	0.46	7.23	<0.01
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### Mediation analysis

To test whether *EI* mediates the relationship between *SES* and *teacher achievement*, a *mediation analysis* was conducted using the PROCESS macro in SPSS (Model 4). The indirect effect of *SES* on *teacher achievement* through *EI* was significant ( $B=0.27$ , 95% CI [0.14, 0.44],  $p<0.01$ ), indicating that *EI* partially mediates this relationship.

### MANOVA results

A *one-way multivariate analysis of variance (MANOVA)* was conducted to examine the differences in *EI* and *teacher achievement* across low, middle, and high *SES* groups. The overall MANOVA was significant ( $Wilks' \lambda=0.73$ ,  $F(4,244)=9.38$ ,  $p<0.01$ ), indicating that *SES* significantly influenced both dependent variables.

Follow-up *ANOVAs* revealed that *EI* differed significantly across *SES* groups ( $F(2,123)=14.56$ ,  $p<0.01$ ), with post-hoc comparisons (Tukey's HSD) showing that students from higher *SES* backgrounds had significantly higher *EI* scores compared to those from lower *SES* backgrounds. Similarly, *teacher achievement* scores varied significantly by *SES* ( $F(2,123)=18.72$ ,  $p<0.01$ ), with the high *SES* group outperforming the low *SES* group.

## Discussion

### Interpretation of findings

The findings of this study demonstrate that *socioeconomic status (SES)* and *emotional intelligence (EI)* significantly influence *teacher achievement* among secondary student teachers in West Bengal. The correlation results indicate that *SES* has a moderate positive relationship with *teacher achievement*, suggesting that students from higher *SES* backgrounds tend to perform better academically. This is consistent with previous research indicating that financial stability, parental education, and access to resources contribute to better educational outcomes (Sirin, 2005; Dubow et al., 2009). Additionally, *EI* showed a stronger positive correlation with *teacher achievement*, reinforcing existing literature that highlights the role of emotional regulation, self-awareness, and interpersonal skills in academic and professional success (Brackett et al., 2011; Petrides et al., 2016).

The *multiple regression analysis* further confirmed that both *SES* and *EI* are significant predictors of *teacher achievement*. While *SES* accounted for a notable portion of the variance, the inclusion of *EI* substantially improved the predictive power of the model. This suggests that while financial and social advantages provide a foundation for success, the ability to manage emotions and navigate social interactions plays a crucial role in determining academic achievement. The *mediation analysis* revealed that *EI* partially mediates the relationship between *SES* and *teacher achievement*, indicating that individuals from higher *SES* backgrounds may develop stronger *EI*, which in turn enhances their academic performance.

### Implications

The results of this study have several important implications. First, they highlight the need for educational institutions to integrate *EI* training into teacher education programs. While *SES* is a structural factor that may not be easily modified, *EI* can be nurtured through targeted interventions such as social-emotional learning programs, mentorship, and psychological support (Durlak et al., 2011). Policymakers should also recognize the disparities associated with *SES* and implement policies to provide financial aid, access to learning resources, and inclusive pedagogical strategies that support student teachers from lower-income backgrounds.

Moreover, teacher training institutions should prioritize *EI* development by incorporating activities such as reflective practice, role-playing, and stress management workshops. Given the growing evidence that *EI* contributes to teaching effectiveness and job satisfaction (Jennings & Greenberg, 2009), fostering these skills in teacher trainees may not only enhance their academic success but also prepare them for long-term professional growth.

### Future research directions

While this study provides valuable insights, several areas warrant further investigation. Future research could examine longitudinal effects of *SES* and *EI* on teacher effectiveness and career progression. Additionally, qualitative studies exploring personal experiences of student teachers from diverse *SES* backgrounds could provide deeper insights into

the challenges they face and the coping mechanisms they employ. Cross-cultural studies comparing teacher achievement in different socioeconomic and educational contexts would also be beneficial in understanding whether these findings generalize beyond West Bengal.

## Conclusion

This study underscores the significant influence of both *SES* and *EI* on *teacher achievement*, with *EI* partially mediating the relationship between *SES* and academic success. The findings suggest that while socioeconomic factors provide an initial advantage, emotional competencies play an equally critical role in shaping student teachers' academic and professional trajectories. By integrating *EI* development into teacher education and addressing socioeconomic disparities, educational institutions and policymakers can work toward a more equitable and effective teacher training system.

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