

EMOTIONAL INTELLIGENCE: A KEY TO UNLOCKING ACADEMIC POTENTIAL IN B.ED. TEACHER TRAINEES

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Abstract: This study explores the correlation between emotional intelligence (EI) and academic achievement among B.Ed. teacher trainees while also analyzing potential gender disparities in these factors. A purposive sampling technique was used to choose a total of 160 B.Ed. teacher trainees from institutions of education in the Ludhiana district of Punjab, India. The sample consisted of 80 males and 80 females. The study found a significant positive correlation (r = 0.218, p < 0.05) between emotional intelligence and academic achievement. The findings indicate that among B.Ed. teacher trainees, those with higher emotional intelligence levels have a positive relationship with enhanced academic accomplishment. The findings of the t-test for emotional intelligence (EI) and academic achievement did not show any statistically significant gender differences. This was evident from the t-test results for emotional intelligence (t (158) = 1.34, p > 0.05) and academic achievement (t (158) = 1.15, p > 0.05). Findings suggest that there is no significant difference in the emotional intelligence levels and academic achievements of male and female teacher traine es. The study emphasizes the significance of incorporating emotional intelligence (EI) training into teacher education programs to improve both personal and professional achievements. This study fills a gap in the literature by examining gender disparities and the effect of emotional intelligence (EI) on academic achievement in B.Ed. teacher trainees. As a result, educational institutions can better understand how to develop the academic and emotional skills of future teachers. To generalize these findings and investigate long-term impacts, it is recommended to conduct additional studies using larger and more diverse populations.

Index Terms - Emotional Intelligence, Academic achievement, B.Ed. Teacher Trainees.

1. INTRODUCTION

Emotional intelligence (EI) is of great significance in education since it has a crucial impact on shaping many aspects of educational settings. Emotional intelligence involves the capacity to identify, comprehend, and regulate emotions proficiently, both within oneself and in others. Within the domain of education, emotional intelligence (EI) is intricately connected to students' social and emotional welfare, interpersonal connections, and overall academic achievements. Educators with elevated levels of emotional intelligence (EI) are more adept at establishing nurturing learning environments, fostering favorable teacher-student interactions, and effectively managing classroom dynamics. EI is being increasingly acknowledged as a crucial element in improving teaching effectiveness, encouraging student involvement, and fostering the development of socio-emotional learning skills. Thus, understanding and nurturing emotional intelligence among educators and students is crucial for supporting holistic development and attaining educational goals.

Emotional Intelligence in Relation to Academic Performance Among teacher trainees.

Emotional intelligence (EI) has emerged as a critical determinant of success in educational settings, influencing various aspects of students' academic and social experiences (Mayer & Salovey, 1997). For teacher trainees, who are future educators, understanding and developing EI is particularly important. These students are tasked with not only mastering academic content but also cultivating the emotional and social skills necessary to manage classrooms and foster a positive learning environment (Jennings & Greenberg, 2009). The integration of EI into teacher education programs is vital as it enhances pre-service teachers' ability to navigate the emotional complexities of teaching, thereby improving their effectiveness and resilience (Corcoran & Tormey, 2012). Research has shown that higher levels of EI are associated with better academic performance, as students with elevated EI can better manage stress, stay motivated, and engage in effective problem-solving (Parker et al., 2004). Despite its importance, the relationship between EI and academic achievement among Teacher Trainees has not been extensively studied, especially with regard to potential gender

differences (Petrides & Furnham, 2000). Addressing this gap is essential for developing targeted interventions that can enhance both the personal and professional competencies of future educators. By investigating how EI influences academic outcomes and exploring gender dynamics within this context, this research provides valuable insights that can inform educational policies and practices, ultimately contributing to the holistic development of educators who are well-equipped to meet the diverse needs of their students (Brackett et al., 2011).

Rationale of Study

Despite the increasing recognition of emotional intelligence (EI) as a crucial factor in educational success, there remains a significant gap in understanding its specific impact on academic achievement within the context of teacher education programs. Teacher trainees, who are preparing to become future educators, require a blend of academic proficiency and emotional competencies to effectively manage classrooms and support student learning. However, the extent to which EI influences their academic performance has not been thoroughly investigated. Further more, existing research does not sufficiently address potential gender differences in EI and academic achievement among B.Ed. students. This lack of targeted research leaves a critical gap in knowledge that, if addressed, could inform educational policies and practices aimed at enhancing the effectiveness of teacher training programs.

Purpose of the Study

The purpose of this study is to explore the relationship between emotional intelligence (EI) and academic achievement among teacher trainees and to investigate potential gender differences in these variables.

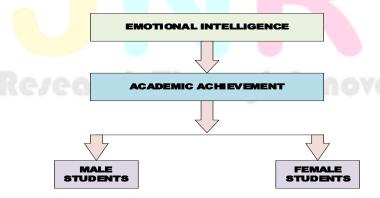
2. THEORETICAL FRAMEWORK

This study is grounded in emotional intelligence (EI) theory and educational psychology to examine how EI impacts academic achievement among teacher trainees and to explore potential gender differences. Mayer and Salovey's Four-Branch Model (1997) defines EI as the ability to perceive, use, understand, and manage emotions, suggesting that students with higher EI can better handle emotional challenges, potentially leading to improved academic performance. Goleman's framework (1995) expands on this by highlighting self-awareness, self-regulation, motivation, empathy, and social skills as key EI components that contribute to personal and professional success. In the realm of educational psychology, Social and Emotional Learning (SEL) underscores the importance of developing emotional competencies, which correlate with better academic outcomes and social interactions. Additionally, gender studies in education examine how gender influences learning experiences and outcomes, providing a basis for investigating potential differences in EI and academic achievement.

Applying these theories, the study first hypothesizes that there will be no significant relationship between emotional intelligence and academic achievement among B.Ed. teacher trainees. Furthermore, the study hypothesizes that there will be no significant gender differences in emotional intelligence and academic achievement, which is essential for developing gender-inclusive educational strategies.

Conceptual Model

The conceptual model for this study visually represents the relationships proposed in the theoretical framework. It illustrates how EI is expected to influence academic achievement and explores potential gender differences in these variables. The conceptual model visually captures the theoretical framework by depicting the relationships between EI, academic achievement, and gender differences. It serves as a guide for the study's empirical analysis, ensuring that the hypotheses are systematically tested, and the theoretical constructs are clearly operationalized.



CONCEPTUAL MODEL

This integrated approach ensures that the study contributes meaningful insights into the role of EI in teacher education and the potential need for gender-specific educational strategies.

3. LITERATURE REVIEW

A. Studies Examining the Link Between EI and Academic Performance in Various Educational Contexts

The relationship between emotional intelligence (EI) and academic performance has been extensively studied across various educational settings, highlighting its significant role in influencing student success.

Salovey & Mayer (1990) first introduced the concept of emotional intelligence, laying the foundation for subsequent research. They posited that individuals with high EI are better at managing their emotions, which positively affects their academic performance. Parker et al. (2004) also conducted a study on university students and found that those with higher EI scores had better academic performance. They suggested that EI contributes to effective stress management and academic motivation, leading to improved outcomes.

Mayer et al.(1999) explored the impact of emotional intelligence on high school students and found a positive correlation between EI and academic achievement. Their research indicated that students with their EI were more adept at handling the social and emotional demands of school life, which translated into better academic performance.

Brackett et al.(2011) examined the role of EI in secondary school students and found that students with higher EI exhibited better social skills, lower levels of anxiety, and higher academic achievement. Their study highlighted the importance of integrating EI training into secondary education curricula to enhance student outcomes.

Chang & Tsai (2022) investigated the impact of Emotional Intelligence, Learning Motivation and Self-Efficacy on Their Academic achievement among university students. Their findings revealed that the students' emotional intelligence did not directly affect their academic achievement. This relationship is mediated by learning motivation and self-efficacy.

Perera & DiGiacomo (2013) conducted a meta-analysis on the impact of EI on academic performance in higher education. They concluded that EI is a significant predictor of academic success, with students possessing higher EI achieving better academic results across various disciplines.

Jennings & Greenberg (2009) examined EI in the context of teacher education programs and found that pre-service teachers with higher EI were better equipped to handle the emotional complexities of the classroom environment. Their research suggested that developing EI in teacher candidates could lead to more effective teaching practices and improved student outcomes.

Corcoran & Tormey (2012) explored the relationship between EI and teaching performance in teacher education students. Their study indicated that higher EI was associated with better classroom management skills and more positive student-teacher interactions, ultimately contributing to better academic performance of their students.

These studies collectively underscore the importance of emotional intelligence in educational contexts, demonstrating that higher levels of EI are consistently associated with better academic performance. Integrating EI development into educational programs can enhance student success and overall educational quality.

B. Specific research on EI in teacher education programs

Research on emotional intelligence (EI) within teacher education programs has yielded compelling findings regarding its impact on the effectiveness of future educators and their ability to meet the socio-emotional needs of students. Jennings & Greenberg (2009) conducted a comprehensive review emphasizing that higher levels of EI in pre-service teachers are linked to improved classroom management, positive teacher-student relationships, and increased student engagement. Similarly, Brackett et al. (2011) proposed the inclusion of EI development in teacher education curricula to promote emotional competence among educators, which improves emotional regulation skills and reduces stress. Corcoran & Tormey (2012) further investigated this relationship, finding that higher emotional intelligence in pre-service teachers correlates with effective classroom management, greater empathy towards students, and improved instructional practices. Additionally, Matthews et al.(2006) implemented an EI development program for pre-service teachers, demonstrating improvements in emotional awareness, interpersonal skills, and the ability to create supportive learning environments. Together, these studies underscore the critical importance of EI in shaping effective teaching practices and improving educational outcomes within teacher education programs.

Gaps in the Literature

Despite the growing interest in the role of emotional intelligence (EI) in educational settings, there remains a significant gap in the literature concerning its specific impact on academic achievement among B.Ed. teacher trainees. Most existing research focuses on general student populations or various professional fields, often neglecting the unique context of teacher education programs. This gap is critical because teacher trainees, as future educators, require both academic proficiency and emotional competencies to effectively manage classroom environments and foster positive student outcomes.

Previous studies have established a general link between EI and academic performance (Mayer & Salovey, 1997; Goleman, 1995), but few have specifically addressed teacher trainees. Moreover, while gender differences in EI and academic achievement have been explored in broader contexts (García-Martínez et al., 2021; Petrides & Furnham, 2000; Schutte et al., 1998), there is limited research examining these differences within teacher education programs.

So, this study aims to fill these gaps by focusing on the relationship between EI and academic achievement among Teacher trainees and examining potential gender differences within this specific group. By addressing these gaps, the study contributes to a more nuanced understanding of how EI influences academic achievement in future educators.

4. METHODOLOGY

Research Design

This study employed a correlational research design to examine the relationship between emotional intelligence (EI) and academic achievement among teacher trainees. This design is appropriate for identifying the degree to which two variables are related without manipulating any variables.

Sample Selection

The sample consisted of 160 B.Ed. teacher trainees (80 male and 80 female) selected from eight B.Ed. colleges of Ludhiana district of Punjab, which were affiliated to Panjab University Chandigarh. The selection process utilized purposive sampling technique.

Tools

- 1. **Emotional Intelligence Scale (EIS):** Emotional Intelligence Inventory by Dr. S.K Mangal and Ms. Shubhra Mangal (2004).
- Academic achievement: Academic achievement was quantified using students' Detail marks sheet and percentage obtained after the completion of the second semester examinations in the Bachelor of Education program.

Data Collection

Data were collected in two phases:

- **1. EI Assessment:** Participants completed the Emotional Intelligence Scale (EIS) in a classroom setting, under the supervision of the researcher to ensure consistency and accuracy.
- 2. Academic achievement Records: Academic achievement data were obtained from the academic offices of the participating colleges, with students' consent, ensuring confidentiality and ethical standards were maintained.
- 3. Informed Consent: Prior to data collection, informed consent was secured from all participants, who were assured of the confidentiality and anonymity of their responses.

Data Analysis

The collected data were analyzed using the following statistical methods:

- 1. **Descriptive Statistics:** Means and standard deviations were calculated to summarize the demographic and key variable data.
- 2. Correlation Analysis: Pearson correlation analysis was conducted to examine the relationship between EI and academic achievement.
- 3. **Gender Differences:** Independent samples t-tests were used to explore potential gender differences in emotional intelligence and academic achievement.
- 4. Hypothesis Testing: The significance of the correlation was tested to determine whether the null hypothesis (no significant relationship between EI and academic achievement) could be rejected. The significance of gender differences was also examined.

5. RESULTS

The primary aim of this study was to examine the relationship between emotional intelligence (EI) and academic achievement among B.Ed. teacher trainees. The sample comprised 160 B.Ed. teacher trainees, with an equal representation of 80 male and 80 female students, selected from colleges of education affiliated to Panjab University Chandigarh in the Ludhiana district of Punjab, India.

Descriptive Statistics

Descriptive statistics were calculated to summarize the demographic and key variable data. The mean EI score for the sample was 105.4 (SD = 12.3), and the mean academic achievement score, measured by the students' academic achievement, was 3.45 (SD = 0.45).

Table 1: Descriptive Statistics for Emotional Intelligence (Ei) And Academic Achievement By Gender

Correlation Analysis

A Pearson correlation analysis was conducted to examine the relationship between EI and academic achievement. The analysis revealed a correlation coefficient (r) of 0.218 (p < 0.05), indicating a significant positive relationship between EI and academic achievement among Teacher trainees. This suggests that students with higher levels of emotional intelligence tend to achieve better academic results.

Table 2: Coefficient of Correlation between Emotional Intelligence and Academic achievement of Teacher Trainees (N=160)

GENDER	SAMPLE SIZE (N)	MEAN EI SCORE	STANDARD DEVIATION (EI)	MEAN ACADEMIC ACHIEVEMENT SCORE	STANDARD DEVIATION (ACADEMIC ACHIEVEMENT)	
MALE	80	104.3	11.5	3.40	0.44	
FEMALE	80	106.5	12.9	3.50	0.46	
CATEGORY			N	R	REMARK	
EMOTIONAL INTELLIGENCE ACADEMIC ACHIEVEMENT		160		0.2179918	SIGNIFICANT AT 0.05 LEVEL	

⁽p < 0.05)

Gender Differences

An independent samples t-test was conducted to explore potential gender differences in emotional intelligence and academic achievement. The results indicated no significant difference between male and female students in their EI scores (t = 1.34, p > 0.05) or their academic achievement scores (t = 1.15, p > 0.05). This suggests that the relationship between EI and academic achievement is consistent across genders in this sample.

Table 3: Independent Samples T-Test Results for Gender Differences in Emotional Intelligence and Academic achievement

VARIABLE	GENDER	MEAN	STANDARD DEVIATION (SD)	T-VALUE	P-VALUE	INTERPRETATION
EMOTIONAL INTELLIGENCE (EI)	MALE	104.3	11.5	1.34	> 0.05	NO SIGNIFICANT DIFFERENCE
	FEMALE	106.5	12.9			
ACADEMIC ACHIEVEMENT	MALE	3.40	0.44	1.15	> 0.05	No significant difference
	FEMALE	3.50	0.46			

Hypothesis Testing

The hypothesis stated that there will be no significant relationship between EI and academic achievement among B.Ed. teacher trainees. However, the correlation analysis demonstrated that the correlation coefficient (r = 0.218) exceeded the critical value of 0.138 for a two-tailed test at the 0.05 significance level with 158 degrees of freedom. Therefore, the null hypothesis was rejected, and it was concluded that a significant relationship exists between EI and academic achievement in this sample of B.Ed. teacher trainees. Likewise, hypothesis stated that there will be no significant difference between male and female students in their EI scores or academic achievement scores was accepted.

The results highlight a positive correlation between EI and academic achievement among B.Ed. teacher trainees, suggesting that enhancing emotional intelligence could potentially improve academic outcomes. Moreover, the absence of gender differences in both EI and academic achievement implies that educational interventions focusing on EI development could benefit all students equally, regardless of gender.

6. DISCUSSION

The present study aimed to explore the relationship between emotional intelligence (EI) and academic achievement among Teacher trainees and to examine potential gender differences in these variables. The findings contribute to the growing body of literature emphasizing the importance of emotional intelligence in educational contexts, particularly within teacher education programs.

Relationship Between EI and Academic achievement

The positive correlation 0.218 (p < 0.05), between EI and academic achievement highlights the significant role that emotional intelligence plays in academic success. This finding aligns with previous research indicating that students with higher emotional intelligence are better equipped to manage stress, engage in effective problem-solving, and maintain motivation, all of which contribute to improved academic performance. In the context of Teacher trainees, these skills are particularly relevant as they prepare for careers that require emotional regulation and interpersonal effectiveness.

The results suggest that enhancing EI among Teacher trainees could lead to better academic outcomes. Educational interventions focusing on EI development, such as social-emotional learning programs and EI training workshops, could be integrated into teacher education curricula. These programs can help students develop self-awareness, self-regulation, social awareness, relationship skills, and responsible decision-making, which are critical for both personal and professional success.

Gender Differences in EI and Academic achievement

The study found no significant gender differences in EI (t (158) = 1.34, p > 0.05) or academic achievement (t (158) = 1.15, p > 0.05). These findings suggest that male and female B.Ed. teacher trainees possess similar levels of emotional intelligence and achieve comparable academic outcomes. This lack of gender difference in EI and academic achievement is consistent with some studies but contrasts with others that have reported higher EI in females or higher academic achievement in one gender. The results indicate that both male and female students can equally benefit from EI development programs.

The absence of gender differences also suggests that educational strategies aimed at enhancing EI can be uniformly applied across genders without the need for differentiation. This finding is encouraging for educators and policymakers, as it implies that a single, inclusive approach to EI training could effectively support all students.

Implications for Teacher Education

The significant relationship between EI and academic achievement has important implications for teacher education programs. Given that teachers play a crucial role in shaping students' emotional and academic development, fostering EI in future teachers is essential. By integrating EI training into B.Ed. programs, institutions can equip future educators with the skills needed to create emotionally supportive and academically stimulating classroom environments.

Additionally, the study underscores the need for ongoing research to explore the long-term effects of EI on teaching efficacy and student outcomes. Future studies could examine how EI development in teacher education programs influences teachers' professional practices and their ability to manage classroom dynamics effectively.

Limitations and Future Research

There are a few limitations that need to be addressed even though the findings are informative. The study's sample was restricted to B.Ed. teacher trainees exclusively from the Ludhiana district, potentially lacking representativeness for the wider population. To improve the accuracy and applicability of the results, future studies should consider the use of larger and more diverse samples. Conducting longitudinal studies that monitor emotional intelligence (EI) and academic performance over an extended time could offer a more comprehensive understanding of the cause-and-effect connections between these factors. Moreover, investigating the influence of emotional intelligence (EI) on both preservice and in-service teachers could provide significant insights for creating successful interventions.

7. CONCLUSION

Eventually, this study emphasizes the correlation between emotional intelligence and academic achievement among B.Ed. teacher trainees. It also demonstrates that gender does not play a significant role in either emotional intelligence or academic achievement. These findings highlight the significance of including emotional intelligence development within teacher education programs. Through the training of emotional intelligence, educational institutions can empower teachers to effectively address the emotional and academic needs of their students and promote their overall growth and development.

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