



Article

# An Investigation into the Impact of Teachers' Emotional Intelligence on Students' Satisfaction of Their Academic Achievement

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Abstract: This paper explores the correlation between teachers' emotional intelligence (EI) and students' academic achievement. Utilizing the Daniel Goleman questionnaire, the study delves into the multifaceted aspects of EI that extend beyond traditional leadership qualities. Goleman contends that, while attributes such as determination, intelligence, and vision are essential, they alone do not encapsulate effective leadership. Emotional intelligence introduces a spectrum of qualities crucial for leadership success, including self-awareness, managing emotions, motivating oneself, empathy, and social skills. The study employed a questionnaire developed by the researcher, employing a statementbased approach. Participants, predominantly students, were tasked with selecting statements that best resonated with their experiences. The questionnaire aimed to assess various dimensions of emotional intelligence, including self-awareness, emotional management, self-motivation, empathy, and social adeptness. Through statistical analysis of the collected data, the paper examines the relationship between teachers' EI levels and students' academic achievement. Findings revealed the significance of teachers' ability to comprehend and regulate emotions, as well as their capacity for empathy and effective social interaction. Furthermore, the study sheds light on how these facets of emotional intelligence contribute to creating conducive learning environments and fostering student engagement and achievement. This research underscores the pivotal role of emotional intelligence in educational settings and provides insights into how enhancing teachers' EI can positively impact students' learning outcomes. The implications of these findings extend to educational policies and practices, advocating for the incorporation of EI training and development programs for educators to cultivate conducive learning environments and facilitate students' academic success.

**Keywords:** teacher emotional intelligence; student achievement; self-awareness; self-regulation; motivation; social skills



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## 1. Introduction

Since 1995 when the psychologist Goleman brought the concept of emotional intelligence to the world, hundreds of scholars have been conducting research around the world about the characteristics of emotional intelligence and its impact (Gómez-Leal et al. 2021). In the educational field, most of the conducted research has focused on the emotional intelligence of the schools' leaders, but rarely found a study that investigates the emotional intelligence skills and competencies of teachers, and then explores the impact on students' academic achievement (Abiodullah and Aslam 2020). To that extent, this study focuses on exploring the emotional intelligence skills and competencies that most teachers have, and at the same time investigating the impact on students' academic achievement. Teachers need to improve their emotional intelligence because caring and compassion are essential characteristics that every teacher should have (Roe 2020).

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In addition, the teacher must be able to address their emotions and their students' emotions as well as to be able to adapt and modify the reactions to suit the students' different personalities. All these competencies and many others will be addressed and measured by using the Mayer–Salovery–Caruso Emotional Intelligence Test (MSCEIT) (Brackett et al. 2004).

This research aims to study the level of emotional intelligence of teachers and explore the impact of the level of a teacher's emotional intelligence on their students' academic achievement. More specifically, regarding the objectives of the study, the following hypotheses were formed before the study: Some teachers need to improve their emotional intelligence skills and competencies; teachers with high emotional intelligence traits are more capable of leading and influencing their students toward learning; and teachers who have high-level emotional intelligence have a more positive effect on their students' academic performance.

## 1.1. Conceptual Framework

Emotional intelligence is a complicated concept that encompasses a variety of cognitive, emotional, and interpersonal skills (Mancini et al. 2022). People with high levels of EI are better able to control their emotions, comprehend others' emotions, and use emotional information to guide their thinking and behavior, which improves the quality of their interpersonal interactions both personally and professionally (Moors et al. 2013). To delve deeper in the most common theories related to emotional intelligence (EI) characteristics, Peter Salovey and John Mayer developed Mayer and Salovey's Four Branch Model, which proposes that EI consists of four interrelated branches: perceiving emotions, using emotions, understanding emotions, and managing emotions. According to this model, individuals who possess high EI are able to accurately perceive, use, understand, and manage their own emotions, as well as the emotions of others (Olderbak et al. 2019). The second model, Goleman's Mixed Model, developed by Daniel Goleman, proposed a mixed model of EI that includes five elements: self-awareness, self-regulation, motivation, empathy, and social skills. According to Goleman, these elements are interrelated and work together to determine an individual's overall EI (Sfetcu 2020).

The third model, the Bar-On Emotional Quotient Inventory (EQ-i), developed by Reuven, measures EI using five dimensions: self-perception, self-expression, interpersonal, decision-making, and stress management. The Bar-On model proposes that EI is composed of a range of skills and abilities that can be developed through training and practice (Bar-On 2003; Jacquelin 2017; Montgomery et al. 2010). While the fourth model "Trait EI Theory" proposes a concept of EI as a set of personality traits that are distinct from traditional measures of intelligence (Petrides et al. 2016). Trait EI includes a range of characteristics, such as self-confidence, emotional self-awareness, adaptability, and social competence. According to this theory, individuals who possess high trait EI are better able to manage their own emotions and those of others and are more likely to be successful in both personal and professional relationships (Petrides 2010). Also, the emotional-cognitive theory, which was proposed by Joseph Forgas (Williams et al. 2013), suggests that emotions play an important role in cognitive processes, such as memory, judgment, and decision-making. According to this theory, individuals who are able to effectively manage their emotions are better able to use emotional information to inform their cognitive processes, leading to better decision-making and problem-solving abilities (Oatley and Johnson-Laird 2014).

To conduct this research, the emotional-cognitive theory (ECT) was considered as it provides a comprehensive framework for understanding how emotions and cognition interact to shape behavior, including in educational settings. ECT suggests that emotional processes play a critical role in learning and decision-making, and that emotional intelligence can be developed through practice and training (Oatley and Johnson-Laird 1987). According to (Johnson 2008) emotional-cognitive theory (ECT) proposes that emotions play an important role in cognitive processes, such as memory, judgment, and decision-making. According to this theory, emotions can influence how we process and remember infor-

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mation, as well as how we make decisions and judgments. Using ECT as the theoretical framework for the proposed research has several advantages. First, it provides a clear conceptual basis for investigating the relationship between teachers' emotional intelligence, teaching practices, and students' outcomes. By using ECT to guide the research, the study can explore how teachers' emotional intelligence affects their teaching practices, and how these practices in turn influence students' outcomes (Palos et al. 2011). Second, a considerable body of evidence supports ECT and contends that emotional intelligence is a major predictor of grades, test scores, and classroom behavior, among other aspects of academic success (Karkada et al. 2020; Parker et al. 2004; Suleman et al. 2019). The proposed study can add to the body of research supporting the significance of emotional intelligence in educational contexts, particularly in connection to the effectiveness of instruction (Johnson 2008). Third, ECT highlights the value of emotional self-awareness and emotion management, which are essential elements of emotional intelligence. The proposed study can advance our knowledge of how emotional self-awareness and regulation can be promoted in educational settings by looking at the impact of emotional intelligence on teaching methods and student results (Reisenzein 2018). Overall, employing ECT as the theoretical framework for the proposed research can contribute to the provision of a thorough and fact-based understanding of the relationship between teachers' emotional intelligence, and student outcomes (Shafait and Huang 2022) and can offer helpful insights for enhancing educational practices and outcomes.

According to (Cerda et al. 2015; Yi et al. 2021) several variables are included in the emotional-cognitive theory: first, the emotional state, which can be defined as a state of an individual that can influence their cognitive processes, such as memory and decision-making (LeBlanc et al. 2015). For example, research has shown that individuals in a positive emotional state are more likely to remember positive information and make more optimistic judgments (Talarico et al. 2009), while those in a negative emotional state are more likely to remember negative information and make more pessimistic judgments (Talarico et al. 2009; Rusting and DeHart 2000).

Second, emotional regulation refers to an individual's ability to manage their emotions effectively (Thompson 1994; Hoffmann et al. 2020). Individuals who are better able to regulate their emotions are more likely to use emotional information to inform their cognitive processes positively, leading to better decision-making and problem-solving abilities. Third, attention, as it plays a critical role in cognitive processes, and emotions can influence what we pay attention to (Li et al. 2020). For example, emotions can influence our selective attention, or the ability to focus on one stimulus while ignoring others (Schindler and Straube 2020). Emotions can also influence our divided attention, or the ability to attend to multiple stimuli simultaneously (Lieskovská et al. 2021). Fourth is memory, where emotions can also influence how we process and remember information (Kensinger and Ford 2020). For example, emotional events are often remembered more vividly than neutral events, and emotions can influence the type of information that is encoded into memory (Congleton and Berntsen 2020). Judgment and decision-making are also considered, as emotions can also influence how we make judgments and decisions (Van Kleef and Côté 2022). For example, emotions can influence our risk-perception and our willingness to take risks, as well as our trust in others and our willingness to co-operate with others (Oh et al. 2021). Overall, ECT proposes that emotions are a critical variable in cognitive processes, and that understanding how emotions influence these processes can lead to better decision-making and problem-solving abilities.

In summary, EI has evolved over time, with early models focusing on cognitive abilities related to emotions (Sternberg 2000). Daniel Goleman's influential framework, utilized in this study, broadened the definition to encompass a wider range of competencies. These include self-awareness, emotional regulation, self-motivation, empathy, and social skills. This research delves into these specific aspects of EI through a researcher-designed questionnaire and explores how they influence teachers' ability to create positive learning environments and student academic achievement. In other words, this study focuses on how specific

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aspects of emotional intelligence, such as self-awareness and empathy, influence teachers' impact on student achievement, rather than just general leadership qualities.

## 1.2. Literature Review

Emotional intelligence (EI) has a potential impact on a range of teaching and learning domains, and it has attracted a lot of attention in the field of educational research (Yin et al. 2013). Using the results of recent studies as well as theoretical frameworks put forth by experts in the field, this literature review examines the literature on the relationship between teachers' emotional intelligence and students' academic achievement. A study by Mohzan et al. (2013) examines the relationship between students' academic achievement and emotional intelligence at the Universiti Teknologi Mara (UiTM) Education Faculty. A questionnaire that asks about students' academic performance and emotional intelligence level was used to collect the data for this study. The study's findings indicate that the participants (who were pre-service teachers) possess a high degree of emotional intelligence. It has been discovered that there is a strong and positive correlation between the respondents' academic achievement and the two categories of emotional intelligence examined, "self-assessment and understanding of emotions." The study's conclusions have significant ramifications for understanding the importance of emotional intelligence and how it relates to students' academic achievement, particularly for pre-service teachers. This result is aligned with Cherniss et al. (2006) which proves that there is now much more empirical support for EI theory.

A study conducted by Olimat (2016) aimed to examine the association between achievement and quality of life among Al Yarmouk University students and emotional intelligence. Three hundred students who enrolled at the university in the first semester of the academic year 2014/2015 made up the study's sample. The study employed the Daniel Golman quality of life and emotional intelligence questionnaire, with modifications made to the emotional intelligence items to account for Jordan's context. The study's findings demonstrated a statistically significant relationship between academic achievement and emotional intelligence, as well as between academic achievement and quality of life.

In the framework of the teaching–learning process, the Sekreter (2019) study was conducted by reviewing literature to investigate the function of emotional intelligence (EI) in teacher effectiveness and organizational productivity. It emphasizes the use of emotional intelligence (EI) abilities in effective teaching and how they may be used to create learning environments that are conducive to learning and improve student results. While a number of criteria, including professionalism, subject matter competence, and classroom management abilities play a role in teacher effectiveness, emotional intelligence (EI) stands out as a critical differentiator for the most successful educators. Establishing positive teacher–student connections and putting effective emotional learning programs into action require an understanding of students' emotional states and behaviors. The study leads to the conclusion that teachers' ability to support children's good developmental outcomes and academic success is highly influenced by their emotional competence.

Several research studies provide further support for the notion that teachers' emotional intelligence correlates with students' academic achievement. For instance, Wahyuni et al. (2021) conducted quantitative research with a correlational approach determining the level of emotional intelligence and the level of student achievement, as well as to determine whether there is a significant relationship between emotional intelligence and student achievement in social studies subject class IX at SMP Negeri 10 Samarinda during the academic year 2021/2022, as well as the level of emotional intelligence and student achievement. A probability selection strategy using proportional random was employed in this study to select 78 individuals from a sample of 326 students in class IX of SMP Negeri 10 Samarinda. The author used the emotional intelligence scale, which refers to the five components of emotional intelligence and documentation of student report cards, in an attempt to gather data. Based on the results of the study, it showed that there was a significant

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relationship between emotional intelligence and student achievement in class IX of SMP Negeri 10 Samarinda.

In conclusion, the correlation between teachers' emotional intelligence and students' academic achievement is a topic of increasing interest in educational research. Drawing on theoretical frameworks such as Daniel Goleman's model of emotional intelligence and empirical evidence from recent studies, this literature review highlights the importance of emotional intelligence in shaping teaching practices and student outcomes (Krishnan and Awang 2020; Modupe and Ositoye 2010). Moving forward, further research is needed to explore the mechanisms through which teachers' emotional intelligence influences academic achievement and to develop effective interventions for enhancing emotional intelligence among educators. In nutshell, this quantitative research study that aims to examine the relationship between teachers' emotional intelligence and its impact on students' achievement will be as follows:

- 1. **Independent variable:** Teachers' emotional intelligence level or readiness. This variable will be operationalized using a standardized measure of emotional intelligence, such as the Emotional Intelligence Appraisal (EIA) developed by Travis Bradberry and Jean Greaves (Brackett et al. 2011).
- 2. Dependent variable: Students' learning outcomes. This variable will be operationalized using standardized measures of academic achievement, such as scores on standardized tests or grades in the subject area taught by the teacher. The process of analyzing and discussing the students' attainment will be performed by focusing on the growth in academic achievement (Brown and Dutton 2015).
- Potential covariates: Other variables that may impact the relationship between teachers' emotional intelligence and students' outcomes. For example, demographic characteristics of teachers and students, years of teaching experience, and classroom size (Jennings and Greenberg 2009).

**Null hypothesis (H0):** There is no significant relationship between teachers' emotional intelligence level and students' attainment. **Alternative hypothesis (Ha):** There is a significant relationship between teachers' emotional intelligence level and students' academic attainment. The additional hypotheses are as follows: **Null hypothesis (H0):** There is no significant difference in students' achievement based on their teachers' level of emotional intelligence, and the **Alternative hypothesis (Ha):** Students' achievement is significantly different based on their teachers' level of emotional intelligence.

# 1.3. Methodology

The research design for this study will be a correlational design, which would allow for the examination of the relationship between the variables without manipulating them (Dan Fleetwood 2019). The data will be collected using surveys and standardized tests, and the statistical analysis will include correlation and regression analyses to examine the relationships between the variables while controlling for potential covariates. To investigate the relationship between teachers' emotional intelligence and its impact on students' achievement in a quantitative research study, data were collected on teachers' emotional intelligence level (independent variable) and students' achievement (dependent variable) and then these data were analyzed using appropriate statistical techniques. If the results show that the null hypothesis can be rejected, and that there is a significant relationship between teachers' emotional intelligence level and students' outcomes, this would provide evidence to support the alternative hypothesis and suggest that emotional intelligence is an important factor in teaching effectiveness (Pekrun et al. 2009).

**Research design:** A cross-sectional design will be used to collect data on teachers' emotional intelligence and students' achievement and outcomes at a single point in time. The sampling followed a random method that was used to select a representative sample of teachers from the target population. The sample size is determined based on power analysis to ensure sufficient statistical power.

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**Data collection:** Data was collected using a questionnaire that was directed to students to measure their perceptions about their teachers' emotional intelligence and teaching practices, as well as objective measures of student outcomes, such as test scores or grades. A quantitative study has been conducted, where an online questionnaire was used to collect the data. The MS-Forms program was used as a form to host the questions and was directed to the sample of Grade 6 to Grade 12 students in the private and governmental schools of UAE, who evaluated 50 teachers who were the targeted population of the current study. The main instrument of the study is the Mayer–Salovery–Caruso Emotional Intelligence Test (MSCEIT) (MSCEIT; Mayer et al. 2002) as well as the Appraisal Checklist (The Joanna Briggs Institute 2008) as mention in (Munn et al. 2014), which is considered to enable the researchers to assess the methodological quality of a study and to determine the extent to which their study has addressed the possibility of bias in its design.

## 1.4. Data Analysis

The aim of the current study is to investigate the impact of teachers' emotional intelligence on students' achievement. The researcher has proposed four hypothesis which are:

- 1. **H1:** Teacher's self-awareness has a significant positive effect on students' achievement.
- 2. **H2:** A teacher's ability to manage their emotions has a significant positive effect on students' achievement.
- H3: A teacher motivating themself has a significant positive effect on students' achievement.
- 4. **H4:** A teacher's empathy has a significant positive effect on students' achievement.
- 5. **H5:** A teacher's social skills have a significant positive effect on students' achievement.
- 6. **H6:** There is no significant difference between male and female teachers in terms of their level of emotional intelligence.

The study collected 109 responses (N = 109) from students who were selected randomly from middle and secondary grade levels (males and females of grades 6–12) in the UAE. The collected data were analyzed using Microsoft Forms, established by congregating the data from the questionnaire, coding the items into numbers, and then transferring the numbers and converting them to the Jamovi system. The second step was to employ the group of tables that were produced from the performed analysis of Jamovi, in order to support the methodological section of the research. The following data analysis section is performed through descriptive statistics tabulated to visually illustrate the figures. The study used different statistical analysis to find out the results for each of the research questions such the Independent Sample (t-Test and ANOVA), the descriptive statistical analysis (mode, mean, and standard deviation), in addition to using the Cronbach's Alpha to assess the reliability degree. This section presents the results of each of the research hypothesis listed above.

## 2. Descriptive Analysis

This section presents distribution of the demographic data that is provided encompasses various valuable information. The data analysis in the following tables reveal that the majority of those who participated in the survey were female students, who represented 63.3% of the total sample of population, while the male participants were 36.7% as shown in Table 1.

Table 1. Frequencies of students' gender.

Gender S	Counts	% of Total	Cumulative %
Male	40	36.7%	36.7%
Female	69	63.3%	100%

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Moreover, the data analysis in the Tables 2 and 3, show that the majority of the teachers who have been assessed by students were females as well, where the percentage of the assessed female teachers is 60.6% while is just 39.4% male teachers.

Table 2. Frequencies of teachers' gender.

Gender S	Counts	% of Total	Cumulative %
Male	43	39.4%	39.4%
Female	66	60.6%	100%

**Table 3.** Shows the descriptive data analysis of the main themes.

Gender S	Academic	SA	ME	МО	E	SS
N	109	109	109	109	109	110
Missing	1	1	1	1	1	0
Mean	2.50	1.87	1.85	1.92	1.95	1.93
Median	3	1.89	1.88	1.89	2.00	1.95
Mode	3.00	2.00	1.88	2.00	2.00	3.00
Standard Deviation	0.603	0.538	0.503	0.528	0.555	0.547
Minimum	1	0.333	0.375	0.222	0.00	0.00
Maximum	3	3.00	3.00	3.00	3.00	3.00
Shapiro-Wilk W	0.711	0.965	0.952	0.976	0.939	0.936
Shapiro-Wilk p	< 0.001	0.006	< 0.001	0.042	< 0.001	< 0.001

Table 3 shows the descriptive data analysis of the main themes that encompass emotional intelligence, which are the self-awareness (SA), managing emotions (ME), motivating oneself (MO), empathy (E), and social skills (SS). The data analysis shows that the mean of all emotional intelligence themes is at least 2:00 which represents the "apply" answer. At the same time, it is noticed that the mode of each of the components is between 2:00 and 3:00 which means that most of statements that describe emotional intelligence are applicable to the teachers who are included to be assessed in this study.

Related to students' satisfaction with their academic achievement in the class of the assessed teacher, the data analysis in Table 3 shows that the mean of the students' academic satisfaction is 2:50, which is a high rate. In contrast, the second Table 4 shows that 38.5% of students are satisfied with their academic achievement and growth in the classroom of the assessed teacher, while 56.0% of them were very satisfied, which is a high percentage. By contrast, the high percentage of students' academic satisfaction is aligned with a high rate in the components and the themes of the teachers' emotional intelligence.

**Table 4.** Frequencies of students satisfied with academic achievement.

Academic	Counts	% of Total	Cumulative %
Unsatisfied	6	5.5%	5.5%
Satisfied	42	38.5%	44.0%
Very Satisfied	61	56.0%	100%

## 2.1. Reliability Statistics of Survey

The researcher employed Cronbach's Alpha to ensure reliability, finding coefficients ranging from 0.7 to 0.8 across emotional intelligence themes, indicating consistent measurement. High reliability was observed in all themes, affirming stability and consistency in measuring variables, as outlined by (Sylvester Chibueze Izah and Hait 2023).

## 2.2. Assessing Relationships among Variables

In the following section, inferential statistics show how the researcher tested the hypotheses by assessing relationships between variables and assessing differences between groups.

## 2.3. Hypothesis Testing

During the coding phase of this study, the researcher scaled the questionnaire responses using the Likert scale approach that provides five possible answers to each statement in a way that allows students to indicate their strength of agreement or feeling regarding every question or statement. The answers to the emotional intelligence descriptive statements were as the following: Does not apply = 0, Apply sometimes =1, Apply = 2, Apply most of the times = 3.

## 2.4. Independent Sample T-Test and ANOVA

Student's t-test (t-test) and Analysis of Variance (ANOVA) are statistical methods used to test hypotheses. It compares the means between the groups: the t-test is used to compare two groups, while ANOVA is used to compare the means among three or more groups (Mishra et al. 2019). Moreover, ANOVA and t-test are inferential tests that allow researchers to make differences and to compare groups; on the other hand, the significant *p*-value in ANOVA test indicates if the mean difference was statistically significant (Mishra et al. 2019). In the current study, the Shapiro–Wilk test was used to test the normality which is one of the assumptions of t-test and ANOVA, and it is used to compare the scores in the sample to normally distributed set of scores with the same mean and standard deviation. The Shapiro–Wilk test is based on the correlation between the data and the corresponding normal scores, and it helps to detect whether a sample comes from a non-normal distribution (Ghasemi and Zahediasl 2012). Since the current study has a small size sample, normality tests have little power to reject the null hypothesis (Ghasemi and Zahediasl 2012).

## 2.5. The Gender Differences in Emotional Intelligence Dimensions

To assess gender differences, a t-test was applied. However, prior to this, the normality assumption has to be checked. Table 5 indicates the Shapiro–Wilk test findings:

	W	p
SA	0.977	0.056
ME	0.960	0.002
MO	0.980	0.104
E	0.944	< 0.001

0.943

< 0.001

Table 5. Normality test (Shapiro-Wilk).

SS

Note. A low *p*-value suggests a violation of the assumption of normality.

As can be seen, most variables are non-normally distributed. However, according to Pallant (2013), when the sample size is over 30, the violation of the normality assumption will not cause major problems. Hence, a t-test can be used in this study despite the skewed data. The following Table 6 shows that the p-value is less than 5% which means that there is a significant relationship between the teacher's gender and the level of emotional intelligence.

Table 6.	Independ	lent samp	les t-test.
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		Statistic	df	p
SA	Student's t	1.870 *	107	0.064
ME	Student's t	0.665	107	0.507
MO	Student's t	0.573	107	0.568
E	Student's t	0.807	107	0.421
SS	Student's t	1.191	107	0.236

Note, H,  $\mu$  Male  $\neq \mu$  Female. \* Levene's test is significant (p 0.05), suggesting a violation of the assumption of equal variances.

On the other hand, another t-test has been carried out to assess the relationship between a student's gender and the academic achievement satisfaction. The analysis in the following Table 7 shows that the p-value is either the same or more than 0.05 (p < 0.05) which means that there is no significant relationship between the gender of students and the teachers' emotional intelligence variables.

Table 7. Independent samples t-test.

		Statistic	df	p
Academic	Student's t	-1.38	107	0.169

Note, H,  $\mu$  Male  $\neq \mu$  Female.

The t-test for the relationship between the level of students' academic satisfaction, and the gender of the students are showing a p-value higher than 0.05 (p < 0.05) which means that there is no effect or relation between them.

## 2.6. The Shapiro-Wilk and the Homogeneity Tests

The researcher used the Shapiro–Wilk test to check if the data have been normally distributed or not (Ghasemi and Zahediasl 2012). To maintain normal distribution, the *p*-value should not be lower than the threshold 0.05. Table 8 shows that some of the variables conclude a *p*-value lower than 0.05 which are Empathy (E) and Social Skills (SS). Therefore, the researcher tended to conduct the Kruskal–Wallis test (Table 9) but again it does not show normal distribution for the variables Motivating Oneself (MO) and Managing Emotions.

Table 8. Normality test (Shapiro-Wilk).

	W	p
SA	0.979	0.087
ME	0.964	0.005
MO	0.979	0.081
E	0.961	0.003
SS	0.963	0.004

Table 9. Kruskal-Wallis test.

	$\mathbf{X}^2$	df	p
SA	2.702	1	0.100
ME	0.185	1	0.667
MO	0.161	1	0.688
E	0.642	1	0.423
SS	1.478	1	0.224

To assess the homogeneity of variance, we used Levene's test. It gives the *p*-value and compares the five groups in terms of variance, not in terms of emotional intelligence. In addition, it informs the researcher whether there are significant differences or not

(Kim and Cribbie 2017). Table 10 shows that the *p*-value is more than 0.05 in all variance except for Self Awareness (SA) which means that there are no significant differences in terms of variances across the gender of teachers.

**Table 10.** Homogeneity of variances test (Levene's).

	F	df1	df2	p
SA	4.2162	1	107	0.042
ME	0.0120	1	107	0.913
MO	1.3909	1	107	0.241
E	2.0533	1	107	0.155
SS	1.7675	1	107	0.187

## 2.7. Emotional Intelligence and Satisfaction with Academic Achievement

An independent samples t-test was performed to evaluate whether there was a difference between partially satisfied students with academic achievement and fully satisfied students with academic achievement in terms of emotional intelligence dimensions. First, assumptions for normality and equality of variances have been checked (Tables 11 and 12):

Table 11. Normality test (Shapiro-Wilk).

	W	р
SA	0.979	0.079
ME	0.964	0.005
MO	0.980	0.100
E	0.966	0.007
SS	0.972	0.023

Note. A low *p*-value suggests a violation of the assumption of normality.

Table 12. Homogeneity of variances test (Levene's).

	F	df	df2	р
SA	0.842	1	107	0.361
ME	0.259	1	107	0.612
MO	0.882	1	107	0.350
E	0.820	1	107	0.367
SS	0.348	1	107	0.557

Note. A low *p*-value suggests a violation of the assumption of equal variances.

Here, the Shapiro-Wilk test indicated that the data are not normally distributed for ME, E and SS (p = 0.005, 0.007 and 0.023 respectively), while Levene's test suggested no significant variances cross the two groups (p = 0.36 for SA, p = 0.6 for ME, p = 0.3 for MO, p = 0.4 for E, p = 0.5 for SS). However, for normality, according to Pallant (2013), when the sample size is over 30, the violation of the normality assumption will not cause major problems. Hence, the t-test can be used in this study despite the skewed data. The researcher discovered through the ANOVA test that there may be a grievant bias, which happened where just four students out of 109 reported that they are unsatisfied about their academic achievement while there are many others selected the "Satisfied" answer. Therefore, the researcher assumed that students may not feel safe about choosing the "unsatisfied" answer, so they tend to be biased by choosing the "satisfied" answer. As an adjustment corrective action, the researcher adjusted the answers by calibrating the achievement variables by categorizing the answers into just two categories where the "unsatisfied" and the "satisfied" are considered a "partial satisfaction", while the "very satisfied" responses are considered as "full satisfaction". Then, the relationship of the dimensions of the teachers' emotional intelligence versus the students' academic satisfaction have been assessed by using the

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t-test using the academic binary test. The assumptions have been assessed using normality and homogeneity. The following Tables 13–15 shows the binomial logistic regression.

Table 13. Model fit measures.

Model	Deviance	AIC	R <sup>2</sup> <sub>McF</sub>
1	129	141	0.134

Table 14. Model coefficients—academic BIN.

Predictor	Estimate	SE	Z	p
Intercept	-3.305	1.118	-2.957	0.003
SA	-0.236	0.694	-0.341	0.733
ME	1.526	0.706	2.161	0.031
MO	-0.226	0.813	-0.278	0.781
E	-1.852	1.453	-1.275	0.202
SS	2.737	1.619	1.691	0.091

Note. Estimates represent the log odds of "Academic BIN = 1" vs. "Academic BIN = 0".

**Table 15.** Homogeneity of variances test (Levene's).

	F	df	df2	p
SA	0.842	1	107	0.361
ME	0.259	1	107	0.612
MO	0.882	1	107	0.350
E	0.820	1	107	0.367
SS	0.348	1	107	0.557

Note. A low *p*-value suggests a violation of the assumption of equal variances.

The researcher here decided to use t-test and compare satisfied against highly satisfied (two groups) in terms of the EI dimensions. As per Table 16, the results indicated that fully satisfied students with academic achievement (M = 2.0) perceived higher levels of SA in their teachers compared to partially satisfied students with academic achievement (M = 1.7), p = 0.04. Hence, **H1** which says that teachers' Self Awareness (SA) has a positive impact on students' academic achievement satisfaction is accepted. Moreover, the results indicated that fully satisfied students with academic achievement (M = 2.01) perceived higher levels of ME in their teachers compared to partially satisfied students with academic achievement (M = 1.6), p = 0.01. Hence, **H2** which says that teachers' Managing Emotions (ME) has a positive impact on students' academic achievement satisfaction is accepted.

Table 16. Group descriptives.

	Group	N	Mean	Median	SD	SE
SA	0	48	1.71	1.78	0.553	0.0798
	1	61	2.00	2.00	0.493	0.0632
ME	0	48	1.64	1.69	0.473	0.0683
	1	61	2.01	1.88	0.466	0.0596
MO	0	48	1.75	1.78	0.548	0.0792
	1	61	2.05	2.00	0.476	0.0609
E	0	48	1.78	1.90	0.599	0.0864
	1	61	2.08	2.00	0.481	0.0616
SS	0	48	1.73	1.82	0.568	0.0820
	1	61	2.09	2.00	0.483	0.0618

In addition, the results indicated that fully satisfied students with academic achievement (M = 2.05) perceived higher levels of MO in their teachers compared to partially

satisfied students with academic achievement (M=1.7), p=0.01. Hence, **H3** which says that teachers' Managing Oneself (MO) has a positive impact on students' academic achievement satisfaction is accepted. Hence the results in Table 16 indicated that fully satisfied students with academic achievement (M=2.08) perceived higher levels of E in their teachers compared to partially satisfied students with academic achievement (M=1.8), p=0.01. Hence, **H4** which says that teachers' Empathy (E) has a positive impact on students' academic achievement satisfaction is accepted. Last but not least, the results in Table 16 indicated that fully satisfied students with academic achievement (M=2.09) perceived higher levels of SS in their teachers compared to partially satisfied students with academic achievement (M=1.7), p=0.01. Hence, **H5** which says that teachers' Social Skills (SS) has a positive impact on students' academic achievement satisfaction is accepted.

#### 2.8. ANOVA Test

The ANOVA test is used in the study for the purpose of testing more than three variables which are the themes of emotional intelligence because it is the appropriate technique in this case, and it results in fewer type I errors (Bondarouk and Ruel 2004). In the current study, the ANOVA test has been conducted to find whether, for the two groups of teachers (males and females), the gender of the teacher has any impact on the level of emotional intelligence by assessing the variables of the EI which are the Self Awareness, Managing Emotions, Managing Oneself, Empathy, and Social Skills.

Table 17 shows that the p-value is more than 0.05 which means that there is no significance across the five groups and the gender of teacher. In another word, the gender of the teacher has no relationship with the level of emotional intelligence of the teacher, which is approved hypothesis number 6.

	F	df1	df2	n
C.A.		1		P 0.040
SA	3.953	1	105.1	0.049
ME	0.449	1	92.2	0.504
MO	0.366	1	103.8	0.546
E	0.736	1	105.0	0.393
SS	1.610	1	105.4	0.207

Table 17. One-way ANOVA (Welch's).

## 3. Discussion

To investigate how a teacher's emotional intelligence affects a student's academic achievement, the current study used a questionnaire to collect responses from middle and secondary-level graders selected randomly within the UAE. The overall results, nonetheless, indicate that there is a direct relationship between a teacher's emotional intelligence and the academic achievement satisfaction of the students. The higher the emotional intelligence of a teacher, the higher the level of satisfaction of the learners (Table 4).

The five emotional intelligence variables that were utilized in the assessment all showed a direct relationship with the level of academic satisfaction among the learners. The first hypothesis was accepted as the results of Table 16 show that students who perceive their teachers to have a higher level of self-awareness are more likely to be satisfied with their academic achievement. It is a view that is consistent with previous studies where it has been shown that self-awareness improves the student–teacher relationship. In one study investigating the learning environment where students have behavioral problems, Richardson and Shupe (2003) suggest that although self-awareness might focus on how individuals regulate their emotions, it also focuses on how students can affect the emotions of the teacher. Teachers who are self-aware, in this case, are likely to ensure that the students develop positive feelings about their achievements in class. An improvement in self-awareness among teachers is likely to improve the respect and trust that they give to their students, contributing to an improvement in self-perception among the latter (Richardson and Shupe 2003). It is an argument that has been reiterated by Alsulami (2022)

in his analysis of the impacts of a teacher's emotional intelligence on student satisfaction levels. According to the study, the teacher's self-awareness might have the greatest impact on student satisfaction because it influences comfort levels, motivation, learning, and student skills. Further studies on the same indicate that self-awareness among teachers directly affects student belief about their achievement. A self-aware teacher is likely to be empowering to learners, making them satisfied with their results. In comparison, teachers who are not self-aware might fail to demonstrate a belief in the capabilities of their students. This, in turn, means that students who fail might utilize failure-coping strategies because they are not satisfied with their academic performance. Additionally, because self-awareness focuses on the ability of the teacher to understand the possible response of the students to their actions, the teachers can easily influence the student (Ergur 2009). Teachers can easily change their teaching strategies to ensure that the students have a positive response. In essence, the current conclusion that self-awareness has a major impact on student academic satisfaction is consistent with the great body of research.

The results of Table 16 also showed that there is a direct relationship between how a teacher manages their emotion and student academic satisfaction. Generally, this shows that teachers who are better at managing their emotions are more likely to have more students satisfied with their academic performance. Studies observe that the teaching profession is one of the most frustrating as teachers have to deal with different types of students. Teachers can easily get angry if their class has students who fail to complete assessments or students who have behavioral issues. Deng et al. (2022) suggest that although the classroom environment is a mixture of student and teacher emotions, it is the responsibility of the teacher to provide the optimal emotional climate. This means that teachers who can properly manage their emotions are more than capable of managing the student's emotions. From such a view, the study indicates that teachers who can manage their emotions are in a better position to manage frustrations and disappointments from the students. It is an argument that has been supported further in the research by Xiyun et al. (2022) where it is observed that poor emotional management not only impedes learning but can also contribute to negative emotional development among the students. It, in turn, can affect their motivation and satisfaction with their academic achievement.

Thirdly, the results observe that there is a direct relationship between 'managing oneself' and a student's academic satisfaction. Self-management, unlike emotional intelligence, emphasizes different aspects of a teacher's life including taking initiative, adapting to different situations, managing emotions healthily, and managing poor behaviors. However, in the current scholarly work, there is little consideration of self-management as a whole. Several studies utilize self-efficacy as a measure of how self-management among teachers influences student motivation and satisfaction in their academics. According to Mojavezi and Tamiz (2012), teachers with higher levels of self-efficacy have a greater belief that they can influence student outcomes and are more confident in their capabilities as teachers. In essence, more efficacious teachers are more likely to demonstrate higher levels of organization, teaching skills, managing student tasks, and providing the appropriate feedback to the learners. The inverse is true for teachers with low efficacy, who are more likely to get angry at any slight provocation and are less likely to manage student tasks. Putting that into context, current studies demonstrate that teachers with higher efficacy are more likely to improve student motivation and satisfaction with their results (Mojavezi and Tamiz 2012). This is because their interactions with all students, regardless of their capabilities, are democratic and they also show caring attitudes while also having different expectations about student behavior. Additionally, because teachers with higher efficacy are likely to adjust their expectations based on several student variables, they provide student-centered remedial actions. Further studies observe that when teachers show higher efficacy levels, students are more likely to feel supported in their studies, especially through teacher feedback (Engin 2020). Overall, through the use of self-efficacy as one of the variables of self-management, recent studies demonstrate that higher levels of self-management among teachers enhance student satisfaction with their academic achievements.

The next emotional intelligence variable as per the results was empathy. The results support the fourth hypothesis in the research by indicating that a teacher's empathy levels directly influence student satisfaction in their learning. It is a concept that is supported by the current literature where studies show that empathy has a direct impact on student satisfaction because it acts as an emotional support system for the student (Aldrup et al. 2022). Another study indicates that while several scholars focus on the academic aspect of understanding student satisfaction, it is also important to consider the non-academic dimensions (Maamari and Majdalani 2017). Instructor-student interaction, in this case, acts as an important emotional support system that has major implications on student satisfaction. As per the study, Maamari and Majdalani (2017) observe that empathy is important in student-instructor interaction because it determines how the teacher communicates and engages with the student. The aim is to ensure that the student feels part of the classroom and the institution. It is an argument that has been corroborated by Zhang (2022) who observes that if a student feels disconnected from the teacher and the institution they might perceive the educational outcomes as less favorable. This means that empathy is not only important in creating a good student-teacher relationship but also acts as a motivation for student engagement. On top of this, Zhang (2022) observes that empathy is likely to reduce anxiety and stress among students, promoting a positive perception of the results and ensuring student development.

Finally, the results from Table 16 support the hypothesis that a teacher's social skills directly influence student satisfaction in their academic outcomes. Several social skills are important to a teacher, including communication, active listening, co-operation, and decision-making, among others. The available scholarly works support the results of the analysis by suggesting that these behaviors directly influence several student variables including motivation, satisfaction, participation, and involvement (Geier 2021). It is an argument that has been reiterated in a study by Dev et al. (2016), which suggests that because social skills influence teacher performance, they directly influence the psychological well-being of the students. Teachers with better social skills are more approachable and provide appropriate student feedback based on achievement. Further studies by Geier (2021) suggest that social skills such as flexibility, ease of interaction with the student, accessibility, understanding, rapport, and feedback are more likely to improve student satisfaction in their studies. Notably, the research indicates that these social skills are more likely to improve student satisfaction in academic achievement as compared to professional skills. In turn, current scholarly works support the current results by showing that social skills are directly proportional to student academic satisfaction.

# 4. Conclusions

In summary, the researcher set out to investigate the impacts of the teacher's emotional intelligence on the academic achievement of the students. An area of importance, in particular, was how a teacher's emotional intelligence is likely to affect student satisfaction with their academic achievements. Of the five emotional intelligence areas, the research shows that all had a direct and proportional relationship with student satisfaction. An improvement in a teacher's self-awareness, managing of emotions, managing oneself, empathy, and social skills has a direct impact on the student's motivation and satisfaction in their academic results. This relationship might be based on the fact that students who perceive their teachers to be emotionally intelligent in the aforementioned domains believe and trust them. A student is more likely to feel part of the class and the school if the teacher is supportive and provides the appropriate feedback on assignments. A lack of emotional intelligence from the teacher might be more harmful to the average student because an unsupportive teacher will contribute to a poor self-image. For such a category of students, the lack of emotional and psychological support is likely to improve their adoption of maladaptive behaviors. The research also observes that there are no definite criteria to measure the impact of each emotional intelligence variable on the student. It, in turn, is important for teachers to ensure that they demonstrate all five emotional

intelligence elements. Teachers need to show almost equal levels of self-awareness, emotion management, managing oneself, empathy, and social skills.

There is an opportunity to explore practical applications further. Teachers can create caring and supportive learning environments that enhance student well-being and academic achievement by delving into strategies such as emotional intelligence training for teachers and fostering empathetic teacher–student relationships (Ali et al. 2023). This relationship may motivate students to learn and hence predict their achievement as discussed by (Shaljan Areepattamannil et al. 2023). For example, implementing EI training for teachers and fostering empathetic teacher–student relationships could enhance student well-being and academic achievement, creating emotionally intelligent classrooms conducive to student success. John Hattie has proven this relationship in his famous book, "Maximizing impact on learning" (Hattie 2012). He ranked the teacher–student relationship at the top of the most effective pedagogies that predict success.

#### 4.1. Implications

Accordingly, the first major implication of the current research is that teachers should undertake continuous professional development (CPD) courses to ensure that they can grasp the importance of emotional intelligence in the classroom. According to the discussion, it can be observed that the five EI variables have different correlating impacts on the mental and psychological well-being of the learner. It is an argument that is evident in the research by Valente and Lourenço (2022) who observe that apart from pedagogical knowledge, the current teacher training program should also consider emotional intelligence. The aim should be to ensure that teachers are in a better position to handle the different conflicts that arise in the classroom. Studies suggest that in previous teacher-training programs, emotional intelligence was often ignored because of the lack of supporting scientific and social evidence on its importance (Valente et al. 2022). However, development in disciplines such as psychology and neuroscience have shown that EI should be integrated into teachers' pedagogical knowledge. As such, it is recommended that the current educational frameworks should include emotional intelligence as part of the teacher-training program. Secondly, the curriculum needs to be modified as per the needs of the learners. An important aspect of emotional intelligence is the ability of the teacher to customize the learning framework as per the needs of each learner. The feedback and assessment should be consistent with the needs of each student. In essence, there should be a revision of the teaching structure and curriculum to improve how teachers can customize their teaching structure. Based on the conclusions of the current study, it is highly recommended that schools' leadership understand the importance of improving the teacher's emotional intelligence by providing subject specific professional development programs.

#### 4.2. Limitations

The first major limitation was the inability to look at the mental and psychological characteristics of the participants. As has already been indicated, participants were recruited from both public and government schools. This is an important point in the analysis because such categorization shows a difference in socioeconomic factors and family environment, among other factors that affect a child's mental and psychological health. This is also an indication that the children have different psychological needs. As such, the generalization of the participants represents a limiting factor to the research. In future research, the type of school should be considered as a controlled variable as it is an indication of other factors.

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