

## EMOTIONAL INTELLIGENCE (EQ) AMONG SECONDARY LEVEL STUDENTS: A COMPARATIVE STUDY OF MADRASAS AND PUBLIC SCHOOLS

*Ishrat Ashraf<sup>1</sup>, Sarwat Rauf<sup>2</sup>, Nasir Ali<sup>3</sup>,  
Hafiz Muhammad Nasarullah Mujahid<sup>4</sup>*

### **Abstract**

*This was a quantitative comparative study conducted to investigate the levels and the elements of emotional intelligence (EI) among secondary-level learners studying in public schools and madrasas in City Samundri, Pakistan. Data were collected in 167 male students of the two types of institutions using a cluster sampling method. Bar-On Emotional Quotient Inventory (EQ-i) was used for data collection. Descriptive statistics indicated that students in public schools tended to have higher EI with 34.1% in the high category of EI when compared to 26.6% madrasa students. Independent samples t-test showed that the overall EI scores differed significantly between the two groups,  $t(165) = 2.54$ ,  $p = .012$ , with a marginally medium effect size (Cohen  $d = 0.39$ ). In component-wise analysis, madrasa students were found to be mostly weak in the area of social skills (45.6% low level), emotional self-understanding, and regulation of emotions. On the other hand, there was a relatively high level of self-motivation in both groups and especially in madrasa students (41.8% high level). The results highlight the importance of institutional context on the emotional development and outline the necessity of incorporating culturally appropriate emotional learning models, particularly in madrasa schools, to encourage the socio-emotional development of students and their academic involvement.*

**Keywords:** *emotional intelligence, public schools, madrasas, secondary education, social skills,*

### **1.1. Background of the study**

Emotional Intelligence (EI) is also known to be a crucial variable that determines the academic performance, socialization, and general well-being of students. Some of the studies that have investigated the connection between EI and academic performance among the secondary school students have been conducted in the Pakistani context. As an example, a study by Taseer et al. (2023) in Lahore showed that students EI has a significant positive relationship with their academic performance. Likewise, the study by Shah et al. (2024) observed the positive relationship between EI levels and academic performance among secondary students in Mardan District.

Comparative studies across various learning environments have also been done. The study by Bagum et al. (2023) examined how EI affects the learning process of students in high schools and the differences between public and private schools. Their results showed that EI levels in students in private schools were higher and enhanced their academic performance. Yet, there is still a lack of studies that specifically conduct research on madrasas, traditional Islamic schools, and the level of their students EI in comparison to that of students in public schools.

It is important to know how EI can evolve in different educational settings particularly with regard to the fact that it has the effects of helping students to deal effectively with stress, develop self-esteem and participate well in the learning process. Raza et al. (2025) noted that EI and stress coping mechanisms were linked with secondary school students in Multan and recommended the significance of EI in dealing with academic pressures. Moreover, the influence that classroom-

<sup>1</sup> School Education Department, Government of the Punjab. Email: [ishratashraf786@yahoo.com](mailto:ishratashraf786@yahoo.com)

<sup>2</sup> PhD Scholar, Riphah International University, Faisalabad Campus. Email: [Sarwatgujjar@hotmail.com](mailto:Sarwatgujjar@hotmail.com)

<sup>3</sup> PhD Scholar, Riphah International University, Faisalabad Campus. Email: [nasiralidngra468@gmail.com](mailto:nasiralidngra468@gmail.com)

<sup>4</sup> Higher Education Department, Government of the Punjab. Email: [mnm.pak@gmail.com](mailto:mnm.pak@gmail.com)

based EI has on students and their academic performance and self-esteem was investigated by Khan et al. (2023), with the emphasis on the role that emotionally intelligent classroom setting plays in promoting the success of students.

In the context of varying educational environments in Pakistan, the proposed research study will address the research gap by providing a comparative research on EI among students in the secondary level of madrasas and public schools in Pakistan. The study will strive to give insights by evaluating the variation and similarities in the EI growth within these institutions that may lead to a future understanding of how educational policies and practices could influence the emotional and academic competencies of students.

### **1.2. Statement of the Problem**

Emotional Intelligence (EI) has become one of the primary predictors of academic achievement, social adaptation, and psychological health of students. The past ten years of research have validated that students who have a greater level of emotional intelligence are better able to cope with academic stress, have positive interpersonal relationships, and possess greater self-regulation and motivation (Taseer et al., 2023; Shah et al., 2024). Nevertheless, the educational environment, curriculum, teaching practices, and institutional culture are also important factors affecting the development of EI (Khan et al., 2023).

The education system in Pakistan is heterogeneous and fragmented, with both the public schools and the religious madrasas being two major streams of education at the secondary level. Life skills education, co-curricular activities and structured social interaction are generally part of the curriculum and life of the public schools, and these factors also lead to emotional and social development. Madrasas, on the other hand, are centered on religious education, and emotional and psychological growth is frequently given little attention (Asadullah & Zaman, 2018). This sharp contrast in the educational goals and methods of teaching can lead to the differences in the degrees of EI in the students of these schools.

Although the significance of EI in the education of adolescents is increasingly acknowledged, little empirical studies have been carried out in the Pakistani context comparing levels of EI among students studying in madrasas and public schools. The available research is predominantly on either the public or private schools, with a severe gap in literature on the emotional development of students in madrasas (Bagum et al., 2023). This gap in comparative data prevents education policy makers and curriculum developers to make informed judgments on the socio-emotional development of the students in various education systems. Thus, the current research aims to fill this research gap by studying and comparing the emotional intelligence levels among secondary level students in madrasas and public school. The results will not just be useful to the academic literature but also have practical implications on educational reforms to create emotionally intelligent learners in any form of educational institution.

### **1.3. Objectives of the Study**

The following objectives will be formulated to address this study:

1. To measure the level of emotional intelligence among secondary-level students in public sector schools and madrasas in City Samundri.
2. To compare the emotional intelligence of the students studying in public sector schools and madrasas.
3. To identify the weak components of emotional intelligence among madrasa and public school students to inform future emotional development needs.

#### **1.4. Research Questions**

1. What are the emotional intelligence levels among secondary-level students in public sector schools and madrasas in City Samundri?
2. Is there any significant difference in emotional intelligence of public sector and madrasa students?
3. What are the weak components of emotional intelligence among madrasa and public school students that need improvement?

#### **1.5. Significance of the Study**

This study is significant as it explores emotional intelligence (EI) among secondary-level students in two distinct educational settings: public schools and madrasas. In Pakistan, madrasas play a key role in educating a large number of students, yet little attention has been given to the emotional and psychological development of their learners. By comparing EI levels between madrasa and public school students, this study highlights the emotional strengths and gaps in both systems.

The findings will help educators, especially in madrasas, understand the importance of emotional intelligence in students' academic success, social adjustment, and well-being. It may also guide curriculum planners and policymakers in integrating emotional and social learning into religious education, promoting more balanced student development.

#### **1.6 Research Design**

This study employed a quantitative research approach using a survey design. The quantitative approach was chosen to objectively measure and compare the emotional intelligence (EQ) levels among secondary-level students in public schools and madrasas. A survey design enables the researcher to collect data systematically from a sample population and generalize findings to a broader group (Creswell & Creswell, 2018).

The rationale for selecting a survey design lies in its effectiveness in capturing participants' self-perceptions through standardized instruments and its applicability in comparative studies involving large populations. Prior research has shown that survey methods are effective for studying emotional intelligence in educational contexts (e.g., Petrides et al., 2004), providing reliable and quantifiable data on emotional and social competencies.

#### **1.7 Population and Sample**

The population of this study comprises all students enrolled at the secondary level (grades 9 and 10) in public schools and madrasas located in City Samundri, District Faisalabad. All selected students were confirmed to be within Piaget's formal operational stage of cognitive development. A cluster sampling technique was employed to select the sample. Total four clusters, two clusters representing public schools and the other two representing madrasas were randomly selected (2 public schools and 2 madrasas). Cluster sampling is particularly effective when the population is naturally divided into groups or clusters (Fraenkel, Wallen, & Hyun, 2019).

Stratified sampling was not used in this study as the primary focus was on comparing institutional types rather than ensuring proportionate representation of specific strata (e.g., gender, locality) within each institution. The aim was to compare public schools and madrasas as distinct groups rather than to generalize findings across all subpopulations.

#### **1.8 Instrument for Data Collection**

For measuring the emotional intelligence of students, a standardized tool will be used as a research instrument for data collection i.e. an Emotional Quotient Inventory (EQ-i). This scale was developed by Bar On (1997).

### 1.9 Procedure of Data Collection

Data collection was conducted through personal visits by the researcher to the selected institutions. Upon receiving prior permission from the respective school and madrasa administrations, the researcher briefed the participants about the purpose of the study and guided them in completing the EQ-i questionnaire.

Students were assured that participation was voluntary and their responses would remain confidential. The data collection process was scheduled during regular school hours to ensure maximum participation without disrupting academic activities.

### 1.10 Data Analysis Techniques

The collected data were analyzed using Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics (mean, standard deviation) were used to measure the overall and component-wise emotional intelligence of the students. Independent samples t-test was applied to compare the emotional intelligence scores between public school and madrasa students.

### 1.11 Data Analysis

**Table 1**

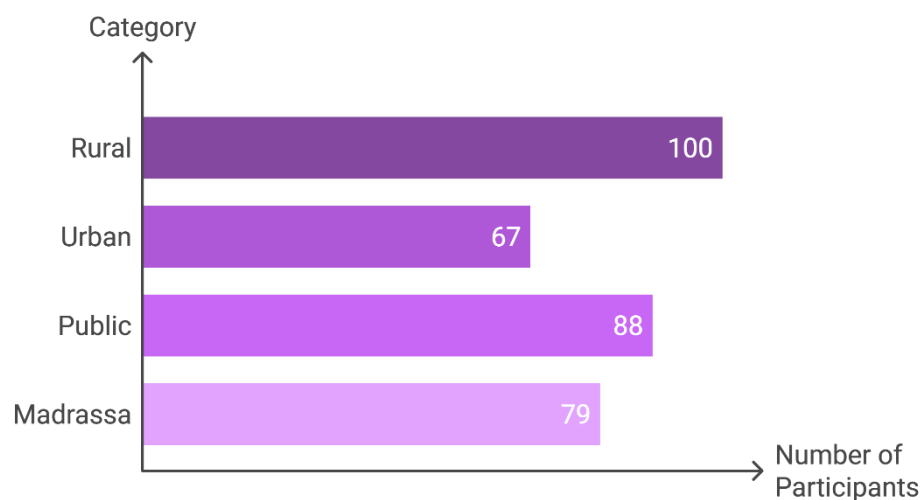
*Distribution of Participants by Locality and Institution Type*

Variable	Category	<i>F</i>	%
Locality	Rural	100	59.9%
	Urban	67	40.1%
	Total	167	100.0%
Institution Type	Public	88	52.7%
	Madrasa	79	47.3%
	Total	167	100.0%

Note: ( $N = 167$ )

**Figure 4.1.**

*Distribution of Participants by Locality and Institution Type*



**Research Question 1:** What are the emotional intelligence levels among secondary-level students in public sector schools and madrasas in City Samundri?

**Table 2**

*Emotional Intelligence Levels Among Secondary-Level Students in Public Schools and Madrasas (N = 167)*

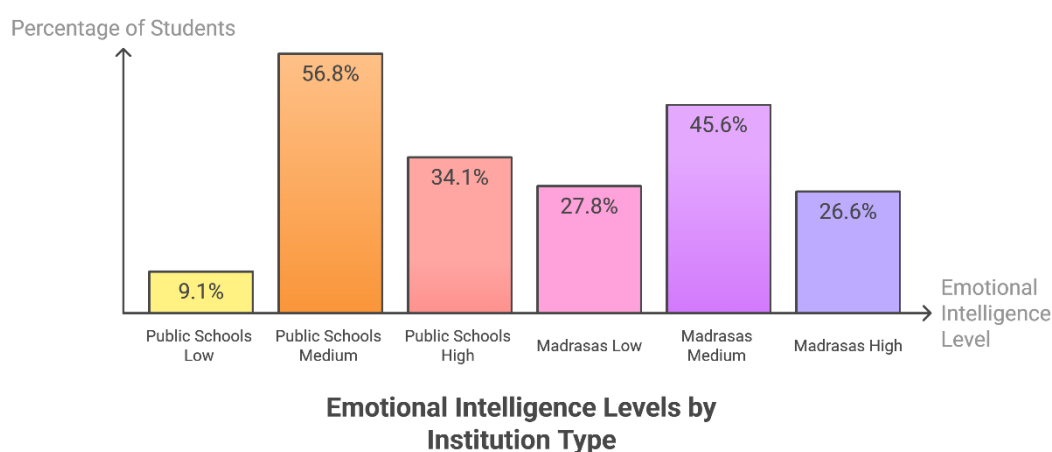
Institution Type	Emotional Intelligence Level	f	%
Public Schools	Low	8	9.1
	Medium	50	56.8
	High	30	34.1
Madrasas	Low	22	27.8
	Medium	36	45.6
	High	21	26.6

*Note. EI = Emotional Intelligence.*

Table 1 shows the distribution of emotional intelligence levels among secondary-level students in public schools and madrasas in City Samundri. Among public school students, more than half (56.8%) demonstrated a medium level of emotional intelligence, while 34.1% showed high levels and 9.1% fell into the low category. In contrast, madrasa students were more likely to have lower emotional intelligence, with 27.8% in the low category, 45.6% in the medium range, and only 26.6% at a high level. Overall, public school students appear more concentrated in the medium to high emotional intelligence categories, whereas madrasa students are more evenly spread across all levels, with a notable proportion in the low category.

**Figure 4.2.**

*Emotional Intelligence Levels Among Secondary-Level Students in Public Schools and Madrasas*



**Research Question 2:** Is there any significant difference in emotional intelligence of public sector and madrasa students?

**Table 3**

*Mean Comparison of Emotional Intelligence between Public and Madrassa Students*

Variable	Public School Students		Madrassa Students		t(165)	P	Cohen's d
	M	SD	M	SD			
Emotional Intelligence	3.81	0.31	3.66	0.43	2.54	.012	0.39

An independent samples t-test was conducted to compare emotional intelligence scores between public school and madrassa students. The results indicated a statistically significant difference in emotional intelligence scores,  $t(165) = 2.54$ ,  $p = .012$ , with public school students ( $M = 3.81$ ,  $SD = 0.31$ ) scoring higher than madrassa students ( $M = 3.66$ ,  $SD = 0.43$ ). The effect size, as measured by Cohen's  $d$ , was 0.39 ( $< 0.50$ ), which represents a small to medium effect (Cohen, 1988). This suggests that although the difference is statistically significant, the practical impact of the difference in emotional intelligence between the two groups is modest.

**Research Question 3:** What are the weak components of emotional intelligence among madrasa and public school students that need improvement?

**Table 4**

*Descriptive Statistics for Emotional Intelligence Components Among Public and Madrassa Students*

Emotional Intelligence Component	Institution Type	Low Level (%)	Medium Level (%)	High Level (%)
Awareness About Self Emotions	Public	30.7%	56.8%	12.5%
	Madrassa	31.6%	53.2%	15.2%
Managing Emotions	Public	20.5%	48.9%	30.7%
	Madrassa	27.8%	48.1%	24.1%
Self-Motivation	Public	6.8%	52.3%	40.9%
	Madrassa	21.5%	36.7%	41.8%
Social Skills	Public	12.5%	68.2%	19.3%
	Madrassa	45.6%	43.0%	11.4%
Empathy	Public	11.4%	53.4%	35.2%
	Madrassa	16.5%	46.8%	36.7%

*Note:* (N = 167)

The descriptive statistics show that madrassa students exhibit significant weaknesses in specific components of emotional intelligence. Most notably, 45.6% of madrassa students scored low in



Social Skills, making it the most critical area. This was followed by Managing Emotions (27.8%) and Awareness About Self Emotions (31.6%), both of which also had substantial proportions of low-level scores.

In contrast, public school students showed the greatest weakness in Awareness About Self Emotions (30.7%), though this was slightly better than their madrasa counterparts. For both groups, Self-Motivation was relatively strong, particularly among public school students (only 6.8% at low level).

The data suggests that while both groups may benefit from improvements in emotional awareness and regulation, madrasa students, in particular, need focused support in developing social interaction skills.

### **1.12 Discussions and Conclusions**

This research compared emotional intelligence (EI) between secondary-level students in madrasas and in public schools and found weak areas that need to be improved. The findings indicated that the EI levels of the public school students were generally better, with 34.1% of the students scoring high and only 9.1% scoring low. Conversely, students in madrasas were more likely to be low EI (27.8) and less in the high EI (26.6) category. It implies that the emotional development in the public schools can be supported by the structured, socially diverse setting than in the madrasas setting, which is more insulated and religiously oriented (Asadullah and Zaman, 2018; Bagum et al., 2023). The two groups differed significantly ( $p = .012$ ), but the effect size was small to medium (Cohen  $d = 0.39$ ) which proves that institutional context does affect EI development (Taseer et al., 2023; Khan et al., 2023). An analysis done by component showed that the weakest aspect of madrasa students was Social Skills (45.6% low level), then Awareness About Self Emotions (31.6%), and Managing Emotions (27.8%). Self-Awareness also revealed a weakness among the public school students (30.7%), but at a lower level. Nonetheless, both groups had Self-Motivation strength, particularly high level among madrasa students (41.8%), which could be an indication of high intrinsic or religious motivation (Goleman, 1998). These results indicate that emotional learning interventions are necessary in both systems, particularly madrasas, in order to promote balanced emotional development. Culturally sensitive emotional and social learning might be integrated to help close the developmental gaps and equip students with academic and social challenges (Zahid et al., 2023; Raza et al., 2025).

The research concludes that although both educational environments strive to develop students both academically and morally, there is an obvious necessity to introduce structured emotional learning into their programs. Emotional intelligence in students, especially in madrasas, can be enhanced to improve academic involvement, socialization, and mental health. These emotional skills gaps need to be addressed in order to create balanced emotionally resilient individuals who will be able to succeed in various educational and social settings.

### **1.13. Recommendations**

1. To improve low emotional intelligence levels, especially among madrasa students, it is recommended that madrasas integrate structured emotional learning components such as self-awareness activities, reflective discussions, and emotion regulation practices within their existing religious curriculum. This can help address the high percentage (27.8%) of students with low EI in madrasas.
2. To address the specific weaknesses in emotional intelligence components, particularly social skills, emotional awareness, and emotion management among madrasa students, focused workshops or training sessions should be introduced. These should promote communication,

collaboration, and emotional regulation through role-play, peer interaction, and guided storytelling, without conflicting with religious values.

3. Public schools should also strengthen emotional education, especially in the area of self-awareness, where 30.7% of students showed low levels. Teacher training programs should include strategies to promote emotional reflection and self-understanding in classroom settings.
4. Policy-level inclusion of emotional and social learning (SEL) is recommended for both public and religious educational institutions. Curriculum planners should consider including culturally and contextually relevant SEL modules to systematically develop students' emotional competencies across all institution types.

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