Emotional Intelligence of Students with Learning Disabilities and Students with Intellectual Disabilities


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**Abstract**

Many recent studies across the world present a dire lack of research on Emotional Intelligence (EI) in the field of individuals with disabilities. This study could be an academic call to conduct more research on the (EI) of students with disabilities. The purpose of the study is to examine the differences in (EI) between students with learning disabilities (LDs) and students with intellectual disabilities (IDs) in the kingdom of Saudi Arabia. One hundred students participated in the study: fifty students with learning disabilities aged six to twelve years and fifty students with intellectual disabilities aged eight to fifteen years. The Emotional Intelligence Picture Scale for Disabled Children (prepared by the researcher) was the standardized scale used to collect data. The results showed that there were differences between students with LDs and students with IDs in the total score and components of Emotional Intelligence. There is a relationship between age and Emotional Intelligence for both students with LDs and students with IDs. The study concluded that there is a need to introduce EI counseling programs to improve the components of EI. It can help students with IDs gain better control over their emotions and teach necessary skills for daily living. The study recommended that it is important to deal with EI over the lifespan of the disabled students to try to introduce counseling programs for the students who have problems in EI. It is useful for inclusion schools in the kingdom of Saudi Arabia, to implement the EI pictogram scale to identify the level of EI of students with disabilities.

**Keywords:** Emotional Intelligence Pictorial Scale, Disabilities, Differences, Age.

**Introduction**

Currently, there is an increasing interest in the role of Emotional Intelligence (EI) in children’s emotional adjustment in school. However, there are still research gaps in the study of EI in different living and educational situations of individuals with disabilities. Consequently, it is imperative for future research to continue in this regard. In the kingdom of Saudi Arabia, there is a glaring lack of research in EI of students with disabilities.

Al-Nagaae (2014) mentioned that weaknesses in EI skills affect the lives of individuals, especially children with disabilities. Al-Shady (2019) investigated the effectiveness of a training program to improve EI skills. This study was conducted considering Goleman Model in female students with LDs in the kingdom of Saudi Arabia. The study of Al-Shady reached several recommendations — the most important was the generalization of EI programs with female students with LDs. (Sivasubramanian, 2020) mentioned that there is a need to discuss EI with those affected by intellectual disability. More considerate of this will result in more successful programs for individuals with such disabilities, which in sequence will result in more academic skills and better social interactions.

The study of the EI of students with disabilities is a new topic in the Arabic research library. Also, examining the differences between students with LDs and students with IDs in EI explores whether IQ influence IE in the sense that LDs have more IQ than IDs. Zysberg & Kasler (2017) mentioned that there is no consensus in the psychological literature that students with LDs have average emotional abilities. They claim that cognitive problems are correlated with emotional complications. However, some point out that emotional skills are not conceded in such
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conditions and can help students to cope successfully with the problems in different situations.

**Emotional Intelligence**

The word "emotion" is derived from the Latin *emovere*, which indicates to move. *Emovere* is derived from movi, which exactly means "in motion". Emotion, then, represents movement. Hence, we asserted that without emotion, nothing moves (Freitas-Magalhães, 2009). Gardner (1983) identified emotions with personal intelligence. He stated that EI is less about encouraging individual's plan and more about confirming the efficient performance of the society. Gardner added that personal intelligence includes two branches of knowledge: interpersonal and intrapersonal knowledge. While there are parallels to Gardner's (1983) construct of personal intelligence in Peter Salovey and John Mayer's (1990) model of EI, Salovey and Mayer contend that EI specifically focuses on identifying and using inner emotions along with the feelings of others to solve life troubles and regulate actions. According to the EI approach, those who have EI-related skills are adapted and adept at managing emotions. In contrast, those who do not possess these skills are likely to be weakened in their emotional performance and relations with others (Salovey, & Mayer, 1990).

Daniel Goleman popularized EI in 1995, referring to it as a mixed model that views EI as both an ability a person is born with and a trait a person can use. In 1998, Goleman defined "EI as the range of skills and traits that lead to managerial functioning". Goleman (1998) found that emotional quotient accounts for 67% of this ability, which is critical to being a better leader. This ability doubles with professional competence. According to Coleman (2015), "EI is an individual's ability to recognize his or her own and others' emotions, to distinguish between and correctly characterize different emotions felt by the individual, and to use emotional knowledge to drive beliefs and behavior." Hen & Goroshit (2014) defined EI as "the ability to evaluate, regulate, and use emotions and is connected to academic self-efficacy and a range of better consequences, including better academic achievement." Khlevnaya et al. (2012) focus as components of EI the ability to distinguish and convey emotions, the ability to create emotions to meet certain challenges leading to the ability of sufficient realizing of actions previous and next emotions, the ability to control one's own and others' emotions. Radford (2014) explores two understandings regarding a recent view on the core of EI. The first understanding is dualistic in nature and perceives emotions as core actions that are the subject of reflection. The second perceives emotions as stores of power that can be replaced in the process of articulation.

According to Salovey et al., (2002), EI theory depends on a four-branch model (perceiving emotions, the use of emotions, considerate emotions and controlling emotions). Each branch self-reliantly consists of main reasoning skills associated with EI. Taken together, the four branches point to skills standard of EI. As such, these branches demonstrate the skills and proficiencies that emotionally intelligent individual exhibit. In the current study, we used the "Mixed Model" developed by Goleman (1998) in preparing the instrument of the study. It is about five main structures of EI. The first structure is self-awareness or the ability to understand one's emotions. An individual is concerned with his strengths and weaknesses as well as his morals and goals. He is also aware of his impact. The second structure is self-regulation or the ability to manage one's emotions. This shows that the individual can adjust to different situations. The third structure is social skills, which helps to establish relationships and move people towards their goals. Empathy is the fourth structure. This means that the person can consider another person's feelings when making decisions. The last construct is motivation. This is the drive to achieve something that is important.

Figure 1.

**Emotional intelligence (Mixed Model) (Goleman, 1998)**

1. **Emotional Intelligence and Learning Disabilities**

Learning Disabilities inhibit with a person's ability to perform acceptably — both academically and socially. Effective evaluation and treatment plans are directly needed to improve the lives of those persons (McLean, 2016). In the kingdom Saudi Arabia, LD is "a problem in one or more essential psychological developments that may manifest as inadequate ability in specific areas of
learning, such as reading, written expression, or mathematics" (Regulatory Guide, 1437 Hajiri).

A study by Zysberg and Kasler (2017) suggests that EI may perform a defensive function in the relationship between experiential factors and university achievement in students with LDs. The findings could support a foundation for interventions to encourage students with LDs in academic situations. McLean (2016) examined whether there was a relationship between EI and LDs. Results showed a positive correlation and specifically support the hypothesis that there is a correlation between emotional recognition and expression and LDs, a correlation between recognizing others' emotions and LDs, and a correlation between emotional management and LDs. Checa and Fernández-Berrocal (2015) examined the correlation between (IQ), EI, and cognitive control. The results showed a negative correlation between IQ and the ability to inhibit the processing of irrelevant information. These results suggest that in addition to IQ, EI-related skills are also important for individual cognitive control practices. Hen & Goroshit (2014) examined the relationships between EI, and educational achievement mediated by self-efficacy in 287 LD students and students who are not with learning disabilities. The results showed LD students scored lower than non-LD students on both EI and self-efficacy.

2. Emotional Intelligence and Intellectual Disabilities

The American Psychiatric Association (APA) added the classification of mental disorders to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) on May 18, 2013. In this categorization, intellectual disability (ID) is a term described as a lower intellectual functioning and adaptation limits in three areas: conceptual, social, and practical. ID in this category is classified as a neurodevelopmental disorder and is divided into four basic categories: mild, moderate, severe, and profound (APA, 2013). In the kingdom of Saudi Arabia ID is "a disability described by significant weaknesses in both intellectual performance and adaptive behavior, which includes multiple daily social and functional skills" (Regulatory Guide, 1437 Hajiri). ID is explained as the clear inadequacy in intellectual skills such as learning, reasoning, problem solving, and adaptive behavior, but that is not all when the person is judged. This is where EI comes into play to assist the person deal with an intellectual disability (Sivasubramanian, 2020).

Lifshitz (2020) examined the emotional development of adults with ID, indicating to their spiritual life, EI, and motivation. He added that when studies related to affect, EI, spiritual life, being single, and motivation were presented, a clear pattern arose about the connection between the ID and normal individuals. Adibsereshti et al. (2015) conducted a study on the efficacy of EI guidance on adaptive behavior of pupils with IDs. The findings showed that the training program produced a significant difference between the results of the experimental and control groups. Adaptive behavior, communication skills, and social skills scores were higher in the experimental group, but this was not the case for everyday life skills. It seemed that the EI intervention program could enhance the adaptive behavior and its elements (communication and social skills) of the sample. A case study was conducted by Pereira, & Faria (2015) with a sample of thirty-four children aged eight and fourteen years. The study showed that the recognition of emotions is similar between children with and without IDs, yet some difficulties in understanding and organizing coping strategies were noted. Zijlmans et al.’s (2013) aimed to investigate the correlation between EI on the one hand and emotions and feelings on the other. The results showed that EI, emotions, and feelings were related. Pereira and Faria (2013) conducted a comparative study between the emotional development of children with IDs with that of "normal" children. In terms of emotion expression and identifying emotions, the findings suggested that there are no significant differences between children with IDs and "normal" children. However, the identification of fear and shame is relatively difficult for children with IDs.

3. Emotional Intelligence and Age

According to most EI theories, EI is a skill that can be improved and learned at any age (Emmerling, & Goleman, 2003). EI is not developed at a young age nor is it inheritable (Shapiro 1997; Goleman, 1998). EI is related to age positively. EI increases with age and practice (Goleman, 1998; Salovey, & Mayer, 1990). A person’s total EI improves with age (Stein, 2009; Singh, 2006). Dhillon (2018) concluded that both age and gender are significant and affective variables that can influence EI throughout a person's life. Sharma (2017) found that there is a significant impact of age on EI and its components.

Cabello et al. (2016) looked at the impact of gender and age on EI. They found that gender influenced EI ability score. They also concluded that ability EI increases with age. Between 2001 and 2010, Maddocks (2011) collected responses for the EI questionnaire. The sample size was 12,417, ranging from sixteen to over fifty years old. The total score was found to increase steadily with age. The study of Fariiselli et al., (2006) showed that a portion of EI increases with age. This increasing in EI with age is small but significant. There are components of EI that do
not increase with age, indicating that specific skills should be improved through training.

**Purpose of the Present Study**

Pereira, & Faria (2015) mentioned that It is the need of the hour to focus on the emotional development of children with IDs. Lifshitz (2020) exhibits the serious lack of research and interest in influence and specifically EI in the field of disability. Al-Shady (2019) stated that there is a need to study the EI of all individuals, especially children, and particularly those with disabilities in the kingdom Saudi Arabia. The purpose of the study was to focus on EI of two categories of disability. It aims to investigate differences in EI between students with LDs and IDs in the kingdom Saudi Arabia. Many recent studies around the world show an appalling lack of research on EI around learning disabilities and intellectual disabilities (Al-Nagaae, 2014; Zysberg & Kasler, 2017; Sivasubramanian, 2020).

**Questions**

Based on the literature review, the following questions were asked:

1. Are there differences between students with LDs and students with IDs in total EI scores and in the components of EI?
2. Is there a correlation between age and EI of students with LDs and a correlation between age and EI of students with IDs?

**Method**

1. **Participants**

One hundred students (Table 1) ─ fifty students with LDs aged six and twelve years and fifty students with IDs aged eight and fifteen years ─ from Abha and Khamis Mushait inclusion schools in the kingdom of Saudi Arabia participated in the study. The researcher asked the special education teachers in the inclusion schools to allow him to collect EI scale responses from the students in their classes.

**Table 1.**

**Numbers of students, schools, and towns**

<table>
<thead>
<tr>
<th>School name</th>
<th>Disabilities</th>
<th>Students</th>
<th>Total</th>
<th>Town</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alnamuzajia</td>
<td>Learning disability</td>
<td>16</td>
<td>50</td>
<td>Abha</td>
</tr>
<tr>
<td>Almalik abd Aleaziz</td>
<td></td>
<td>16</td>
<td>Abha</td>
<td></td>
</tr>
<tr>
<td>Alfayasha</td>
<td></td>
<td>10</td>
<td>Abha</td>
<td></td>
</tr>
<tr>
<td>Abd Allah bin Maseud</td>
<td></td>
<td>8</td>
<td>Khamis Mushait</td>
<td></td>
</tr>
<tr>
<td>Ali bin abi Talb</td>
<td>intellectual disability</td>
<td>13</td>
<td>50</td>
<td>Khamis Mushait</td>
</tr>
<tr>
<td>Alfaruq</td>
<td></td>
<td>13</td>
<td>Khamis Mushait</td>
<td></td>
</tr>
<tr>
<td>Omar bin Alkhitab</td>
<td></td>
<td>10</td>
<td>Khamis Mushait</td>
<td></td>
</tr>
<tr>
<td>Muhamad Alqasim</td>
<td></td>
<td>7</td>
<td>Khamis Mushait</td>
<td></td>
</tr>
<tr>
<td>Alhasan Albasri</td>
<td></td>
<td>7</td>
<td>Khamis Mushait</td>
<td></td>
</tr>
</tbody>
</table>

2. **Instrument**

**Emotional Intelligence Pictorial Scale for Disabled Children**

The scale of the EI was prepared by the researcher. It is based on the mixed model of the five components identified by (Goleman, 1998):

1. Self-awareness.
2. Self-Regulation.
3. Empathy.
5. Social skills.

**Description and Correction of the Emotional Intelligence Scale.** The scale comprises:

**Part one: The Pictorial Part.** There are 25 mapped situations distributed among Goleman's five components to express EI. Each component deals with five situations. Each situation consists of one picture followed by two pictures. There are only two pictures from which the child can choose. The child must choose the picture that conveys his or her emotions in these situations. The correct answer gets two points, the wrong answer gets zero points. The maximum score for the first part is fifty degrees.

**Part two: Teacher Observation Form for Measuring Emotional Intelligence.** It is a form that consists of twenty-five phrases that are also distributed among the five components developed by Goleman to express EI. For negative expressions say, seven, eight, nine, ten, use zero,
one, two. So, the maximum score for the second part of the form is fifty, and the total sum of the scores on the EI scale is 100.

![Image](image1.png)

**Figure 2.**

*A picture of the pictorial EI scale*

**Validity.** To check the validity of the EI scale, the researcher validated the content after presenting it to seven university professors from the Department of Psychology and the Department of Special Education at universities in Egypt and the Kingdom Saudi Arabia. Images and phrases were deleted when 70% of the reviewers disagreed. Picture twenty-one was deleted, bringing the number of scale pictures to twenty-five out of twenty-six in the original picture of the scale. The teacher's observation form for measuring EI originally included twenty-eight phrases. Phrase seven was changed and phrases ten, twenty, and twenty-six were deleted, bringing the number of statements in the final form to twenty-five.

**Reliability.** To investigate the reliability of the EI pictorial scale, seventy-five students — forty students with LDs aged six to twelve years and thirty-five students with IDs aged eight to fifteen years — from inclusion schools in Abha and Khamis Mushait participated.

**Cronbach's Alpha.** Cronbach's alpha was examined using the EI pictorial scale, and the result was 0.960. This value indicates that the EI pictorial scale can be relied upon to measure the EI of students with LDs and IDs in the kingdom of Saudi Arabia.

**Table 2.**

<table>
<thead>
<tr>
<th>Components of emotional intelligence pictorial scale</th>
<th>value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-awareness</td>
<td>.941</td>
<td>.000</td>
</tr>
<tr>
<td>Self-Regulation</td>
<td>.962</td>
<td>.000</td>
</tr>
<tr>
<td>Empathy</td>
<td>.960</td>
<td>.000</td>
</tr>
<tr>
<td>Motivation</td>
<td>.875</td>
<td>.000</td>
</tr>
<tr>
<td>Social skills</td>
<td>.950</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Guttmann.** Table 2 shows the scores on the five components of the EI image scale. The scores indicate that the five components of the EI pictorial scale are reliable, and this scale can measure the EI of LDs and IDs in the kingdom of Saudi Arabia.

3. **Design**

This study is based on the descriptive design conducted by observing and describing the behavior of the sample. Moreover, this study involves comparative research. It compares two groups to conclude a conclusion about them and categorize and analyze similarities and differences between LDs and IDs. The data related to the study was analyzed using SPSS. The researcher used appropriate statistical methods to answer the questions.

4. **Results and Discussion**

To answer the study questions, 100 students — fifty students with LDs aged six and twelve years and fifty students with IDs aged eight and fifteen years — from Abha and Khamis Mushait...
schools in the kingdom of Saudi Arabia participated.

**Research Question 1**

The Mann-Whitney test was used to answer this question in Table 3. It was conducted to show differences of total score and components of EI among students with LDs and IDs.

The results of the first question in Table 3 showed differences between students with LD and students with ID in total score and components of EI. The mean score of students with LD was higher than the mean score of students with ID (students with LD = 70.21, while students with ID was 30.79. This result states that IQ is related to EI because students with LDs have average or above average intelligence. In contrast, ID is characterized by lower intellectual ability.

**Table 3.**

*Values of Mann–Whitney test of the total score and components of emotional intelligence*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Disability</th>
<th>N</th>
<th>mean</th>
<th>total</th>
<th>U</th>
<th>W</th>
<th>Z</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence</td>
<td>learning disability</td>
<td>50</td>
<td>70.21</td>
<td>3510.5</td>
<td>264.5</td>
<td>1539.5</td>
<td>6.796</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Intellectual disability</td>
<td>50</td>
<td>30.79</td>
<td>1539.5</td>
<td>1539.5</td>
<td>6.796</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Self-awareness</td>
<td>learning disability</td>
<td>50</td>
<td>70.06</td>
<td>3503</td>
<td>272</td>
<td>1547</td>
<td>6.859</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Intellectual disability</td>
<td>50</td>
<td>30.94</td>
<td>1547</td>
<td>1547</td>
<td>6.859</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Managing emotions</td>
<td>learning disability</td>
<td>50</td>
<td>68.47</td>
<td>3423.5</td>
<td>351.5</td>
<td>1626.5</td>
<td>6.210</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Intellectual disability</td>
<td>50</td>
<td>32.53</td>
<td>1626.5</td>
<td>1626.5</td>
<td>6.210</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>learning disability</td>
<td>50</td>
<td>66.47</td>
<td>3323.5</td>
<td>451.5</td>
<td>1726.5</td>
<td>5.537</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Intellectual disability</td>
<td>50</td>
<td>34.53</td>
<td>1726.5</td>
<td>1726.5</td>
<td>5.537</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>learning disability</td>
<td>50</td>
<td>65.19</td>
<td>3259.5</td>
<td>515.5</td>
<td>1790.5</td>
<td>5.079</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Intellectual disability</td>
<td>50</td>
<td>35.81</td>
<td>1790.5</td>
<td>1790.5</td>
<td>5.079</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Social Skills</td>
<td>learning disability</td>
<td>50</td>
<td>65.41</td>
<td>3270.5</td>
<td>504.5</td>
<td>1779.5</td>
<td>5.165</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Intellectual disability</td>
<td>50</td>
<td>35.59</td>
<td>1779.5</td>
<td>1779.5</td>
<td>5.165</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 3.**

*The means of students with LDs and students with IDs in the total score and components of EI*

The result is like another study by Checa and Fernández-Berrocal (2015) who found that the relationship between IQ and intellectual control activities is widely recognized. Also, the results of Mohammed’s (2007) study in Egypt (N = 100) claimed that there was a positive correlation between IQ and EI. Checa & Fernández-Berrocal (2015) added that various studies found that IQ correlates with cognitive control skills.
Research Question 2

Pearson’s correlation in Table 4 was used to answer this question. It was conducted to show the relationship between EI and age among students with LDs and IDs.

Table 4.

<table>
<thead>
<tr>
<th>Disability</th>
<th>N.</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>learning disability</td>
<td>50</td>
<td>.476</td>
<td>.000</td>
</tr>
<tr>
<td>intellectual disability</td>
<td>50</td>
<td>.458</td>
<td>.001</td>
</tr>
</tbody>
</table>

According to the results of the second question, there is a positive correlation between age and EI of students with LD and between age and EI of students with ID. Dhillon (2018) concluded that both age and gender are significant and affective variables that can influence EI throughout life. The results of Sharma’s (2017) study showed a significant effect of age on EI and its elements. The total EI increased with age (Goleman, 1998). Salovey and Mayer (1990) wrote that there is a positive relationship between EI and age. EI increases with age and experience. Bar-On (2006) mentioned that many people can develop more social and emotional intelligent with age.

These findings are consistent with the study of Cabello et al. (2016) who found that the ability EI changes with age along with an inverted U-curve. Maddocks collected research data from 2001 to 2010 based on EI questionnaire responses. The data was based on a sample size of 12,417 participants ranging in age from sixteen to over fifty (2011). The total EI score was found to increase steadily with age.

5. Conclusion

Since there are differences in EI between students with LD and students with ID, the conclusions of the current study strongly support that IQ is related to EI. There is evidence that the IQ of students with LD is average or above average, while the mean of their EI is above the mean of students with ID. Therefore, it is necessary to introduce EI counseling programs to improve the components of EI. EI can help students with IDs to gain better control over their emotions and teach necessary skills for daily life.

Furthermore, there is a positive correlation between EI and age at LD and ID. The results of previous studies claim that EI increases with age, although many of these studies were conducted on "normal" people. This study recently found that there is a positive correlation between EI and age in people with LDs and IDs. The study recommended that it is important to address EI across the lifespan of students with disabilities to try to implement counseling programs for students who have problems with EI. It is useful for the inclusion schools in the kingdom Saudi Arabia, to implement the EI pictorial scale to identify the levels of EI of students with disabilities.

6. Compliance with Ethical Standards

Ethical Statement

I declare that this manuscript is an original, has not yet been published, and is not currently being considered for publication elsewhere.

Acknowledgments

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Declaration of Conflicting Interests

The author declared no potential conflicts of interest related to the research, authorship, and/or publication of this article.

References


APA. (2013). Diagnostic and Statistical Manual of Mental Disorders - DSM. American Psychiatric Publishing.


Regulatory Guide. (1437 Hajiri), Regulatory Guide of Special Education. Ministry of Education, the Kingdom of Saudi Arabia.


Zijlmans, L.J., Embregts, P.J., & Bosman, A.M. (2013). Emotional intelligence, emotions, and feelings of support staff working with clients with intellectual disabilities and...