

# A Comparative Study of IQ and EQ in Physically Disabled and Abled Adults

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**Abstract:** *This paper aims to study about the Intelligence quotient and Emotional quotient among disabled and abled adults. Generally, we see the difference in intelligence and emotional behaviour of persons with disabled in compare to abled. In this study, researchers used the standardized tool Standard Progressive Matrices developed by Dr. John C. Raven and Mangal Emotional Intelligence by S.K Mangal. The results reveal that significant difference found in disables and able on Intelligence quotient and Emotional quotient. Same results have shown in adults also. It means that disabled and able persons work differently because of their IQ and EQ. This study is very relevant and useful for teachers, administrator and policy makers for the betterment of student future. It will also helpful in developing the good habits among students as well as adults.*

**Keywords:** Intelligence Quotient, Emotional Quotient, Physically Disabled and Abled Adults

## 1. Introduction

“My advice to other disabled people would be, concentrate on things your disability doesn't prevent you doing well, and don't regret the things it interferes with. Don't be disabled in spirit as well as physically.”

-Stephen Hawking

“I am conscious of a soul-sense that lifts me above the narrow, cramping circumstances of my life. My physical limitations are forgotten- my world lies upward, the length and the breadth and the sweep of the heavens are mine!”

-Helen Keller

The different concepts and beliefs pertaining to intelligence, emotion and cognition and how it culminated in the theory of intelligence quotient and emotional intelligence, their contribution to the theory and finally closes with a brief discussion on measurement issues and future improvement of the theory.

### Number of Disabled Population and Type of Disability

	Population	Percentage (%)
Total population	1,028,610,328	100
Total disabled population	21,906,769	2.1
Disability rate ( per lakh population)	2,130	--
Type of Disability		
(a) In seeing	10,634,881	1
(b) In speech	1,640,868	0.2
(c) In hearing	1,261,722	0.1
(d) In movement	6,105,477	0.6
(e) Mental	2,263,821	0.2

Functioning and participation of people with locomotor disabilities is limited by various external and internal factors. Though circumstances are same for all, some people are resilient enough to overcome the challenges and excel in life, which in turn indicates that there are some contributing internal factors particularly, person's emotional resources and his intelligence level. The earth has produced many examples that have excelled in their field in which their disability might have excelled in their field in which

their disability might have affected the most. They usually suffer from lack of emotional integration into social environment.

“Try not to associate bodily defect with mental, my good friend, except for a solid reason” **Charles Dickens, David Copperfield**

Therefore at every 1000 there exist approximately 21 disabled People. The world therefore should be equally shared even by them, and should not be the neglected part of society.

## 2. Need and Significance of the Study

There exists a sector too, people with special needs, i.e. Disabled People. From the outset it needs to be stated that that the thoughts of a physically disabled Person need not be very different from their able-bodied peers. However there exist a large number of areas that can create difference so affecting the psychological development and therefore thoughts of those physically disabled. Only a hand full of research has been conducted on them in India. They have always been the discarded sector, but some have proved to overcome their Organ Inferiority

“The world worries about disability more than disabled people do.”

**Warwick Davis**

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different ways such as in terms of one's capacity for logic, abstract thought, understanding, self-awareness, communication, learning, emotional knowledge, memory, planning, creativity and problem solving.

Research has suggested that some people are more successful in their careers than others even when they have had equal educational and experiential opportunities ("EQ Beats IQ," 1988; McDowelle & Bell, 2000; Stuller, 1997). One explanation for these disparities may relate to differences between intellectual intelligence (IQ) and emotional intelligence (EQ). IQ measures academic competencies or one's ability to use knowledge in making decisions and adapting to new situations (Bar-On, 1997). On the other hand, EQ is a measure of emotional and social competencies or one's ability to identify emotional expressions in oneself and others (Goleman, 2001; Hettich, 2000). Although both can be improved through training and changed over time, EQ is distinct from IQ in that it is one's ability to regulate emotions in response to environmental stimuli (Sutarso, 1996; Bar-On, 1997).

EQ has been popularized as a learned skill that is a better predictor of life success than intellectual attainment or technical ability (Goleman, 1995). Recent publicity might suggest that EQ is a new concept. In fact, it has been studied for years in various theories. Harvard University psychologist Howard Gardner introduced the theory of "multiple intelligences" in 1983. He identified two varieties he called "knowing one's inner world" and "social adeptness" (Kemper, 1999, p.16). This distinction between interpersonal and intrapersonal intelligence is the basis for the development of EQ theories (Wells, Torrie, & Prindle, 2000).

### 3. Related Literature

- 1) Rosete and Ciarrochi (2005). Conducted a study and found a significant relationship between emotional relationship and leadership effectiveness in a group of executives. In the first published meta-analytic study related to EI, Van Rooy and Viswesvaran (2004) examined the power of EI has to predict performances outcome across an array of domain by looking at 69 independent studies. They found a correlation between EI and performance of .23, and the predictive validity of EI held relatively constant across the different performance domains, from the work place to academics.
- 2) Drago (2004) pointed that, high emotional intelligence can contribute to a student in the learning process (Goleman, 1996; Elias, Ubrico, Reese et al., 1992, Svetlana, 2007). Students low on emotional intelligence may find failure more difficult to deal with, which undermines their academic motivation.
- 3) **Studies related to Physically Disabled and Physically Abled Adults:-**
- 4) Simeonsson et al., (2000) stated that Persons with disabilities will have the disadvantage of sensory, motor or cognitive Impairment depending on the nature of impairment. Having a physical disability can affect one's emotional. Sometimes, the limitations imposed by attitudinal, socio-cultural, economic, and environmental variable act as barriers to their participation in society.

Limitations in participation and poor access to resources may in turn contribute to handicap.

- 5) Alriksson-Schmidt et al., (2007) studied that it is not that everyone buckles under the impact of impairment or at-risk for stress and discrimination. Not all individuals exposed to stressors would experience negative psychological effects.

### Objectives

- 1) To Study the level of Intelligence Quotient and Emotional Quotient of Physically disabled males and females.
- 2) To Study the level of Intelligence Quotient and Emotional Quotient of Physically abled males and females.
- 3) To Study the level of Intelligence Quotient and Emotional Quotient of Physically disabled Adults
- 4) To Study the level of Intelligence Quotient and Emotional Quotient of Physically abled Adults

### Hypothesis

In keeping with objectives of the study, the following research hypotheses are formulated as well tested against empirical data:

- 1) There is no significant difference between the level of Intelligence Quotient of Physically abled and disabled females.
- 2) There is no significant difference between the level of Intelligence Quotient of Physically abled and disabled males.
- 3) There is no significant difference between the level of Emotional Quotient of Physically abled and disabled females.
- 4) There is no significant difference between the level of Emotional Quotient of Physically abled Males and disabled males.
- 5) There is no significant difference between the level of Intelligence Quotient of Physically abled and disabled adults.
- 6) There is no significant difference between the level of Emotional Quotient of Physically abled and disabled adults

### 4. Design of the Study

For the selection of Sample, purposive method of sampling was used. The distribution of sampling is as follows.

Sr. No	Sample	Total Students
1	Physically Disabled Females	50
2	Physically Disabled Males	50
3	Physically Abled Females	50
4	Physically Abled Males	50
	TOTAL	200

### Tools

#### a) Standard Progressive Matrices

The investigator has employed the Standard Progressive Matrices (often referred to simply as **Raven's Matrices**) which is a set of multiple choice intelligence tests of abstract reasoning, originally developed by Dr. John C. Raven in 1936 Kings College, London, England.

**b) Emotional Intelligence Inventory:-**

The investigator has employed English version of **Mangal Emotional Intelligence Inventory** with a set of 100 questions that measure emotions and are responded by the student either in (Yes) or (No). It is developed by S.K Mangal, M. D University Rohtak and Mrs. Shubra Mangal. C.R.S. College of Education, Noida.

Emotional Intelligence Inventory has been designed by Mangal and Mangal (2004) for the measurement of emotional intelligence (total as well as separately).

**5. Methods of Data Collection**

In order to collect the systematic data, it is essential to approach the people personally, and the investigator did the same.

**Hurdles in Data Collection**

Unfortunately the data collection work was delayed due to many unforeseen difficulties. The main difficulties encounters were as follows:-

**a) Selection of Candidates**

One of the main difficulty that investigator encountered was selection of candidates i.e. which physical disability they possess Example- Visually Impaired, Hearing Disability, Handicapped etc. Locomotor Disability was given more priority.

**b) Individuals Emotions**

Other major difficulty that investigator encountered was that the Disabled individuals might feel odd, that why are they being pin pointed, which might hurt their feeling or emotions.

**c) Cooperation of the respective Heads**

Many institution's head did not allowed even our entrance as the NGO's had a fear whether the information would be leaked as they do not provide much facilities as mentioned.

**d) Availability**

There are no specific institutions for handicapped, and study and work usually in the normal institutions. Hardly 3-4 data from one institution was gathered, which made the work very hectic.

**Statistical Techniques Used:**

- Computation of means and Standard Deviation
- Computation of standard error
- Use of t- test for measuring the significant differences between the mean.
- Correlation

**6. Analysis and Interpretation of Data**

**Hypothesis-1** There is no significant difference between the level of Intelligence Quotient of Physically disabled and abled females

Females	N	Mean	S.D.	t- Value	Significance
Disabled	50	54.74	3.657	2.07	Significant
Abled	50	56	2.433		

The above table shows that the calculated t value is greater than the table value, therefore the null hypothesis is not accepted. It means that there is significant difference in the

level of Intelligence Quotient (IQ) between physically disabled and abled females. Both females have different Intelligence quotient and it appears in their activities and daily routine work.

**Hypothesis 2** There is no significant difference between the level of Intelligence Quotient of Physically disabled and abled males

Males	N	Mean	S.D.	t- Value	Significance
Disabled	50	55.28	2.97	2.41	Significant
Abled	50	56.56	2.40		

The above table reveals that the calculated t value is greater than the table value, therefore the null hypothesis is rejected. It means that there is significant difference in the level of Intelligence Quotient (IQ) between physically disabled and abled males. Both types of males have different Intelligence quotient and work differently.

**Hypothesis 3** There is no significant difference between the level of Emotional Quotient of Physically disabled and abled females

Females	N	Mean	S.D.	t- Value	Significance
Disabled	50	60.52	15.39	3.81	Significant
Abled	50	70.68	11.07		

The above table shows that the calculated t value is greater than the table value on Emotional quotient, therefore the null hypothesis is not accepted. It means that there is significant difference on Emotional Quotient (EQ) between physically disabled and abled females. Both types of females have different Emotional quotient and it appears in their activities and daily routine work.

**Hypothesis 4** There is no significant difference between the level of Emotional Quotient of Physically disabled and abled males

Adults	N	Mean	S.D.	t- Value	Significance
Disabled	50	67.96	1.14	21.91	Significant
Abled	50	73	1.21		

The above table reveals that the calculated t value is greater than the table value on Emotional Quotient, therefore the null hypothesis is rejected. It means that there is significant difference in the level of Emotional Quotient (EQ) between physically disabled and abled males. Both types of males have different Emotional quotient and work differently in their daily life.

**Hypothesis 5** There is no significant difference between the level of Intelligence Quotient of physically disabled and abled adults

Adults	N	Mean	S.D.	t- Value	Significance
Disabled	100	55.64	2.736	1.753	Not Significant
Abled	100	56.28	2.433		

The above table shows that the calculated t value is less than the table value, therefore the null hypothesis is accepted. It means that there is no significant difference in the level of Intelligence Quotient (IQ) between physically disabled and abled adults. Both types of adults have approximately same level of Intelligence quotient and do their activities and daily routine work similarly.

**Hypothesis 6** There is no significant Difference between the level of Emotional Quotient of Physically disabled and abled Adults

Adults	N	Mean	S.D.	t- Value	Significance
Disabled	100	64.24	13.93	4.064	Significant
Abled	100	71.84	12.59		

The above table shows that the calculated t value is greater than the table value, therefore the null hypothesis is not accepted. It means that there is significant difference in the level of Emotional Quotient (EQ) between physically disabled and abled adults. Both types of adults have different level of Emotional quotient and do their activities and daily routine work differently.

## 7. Educational Implications of the Study

This study is very relevant to the teachers, policy makers and administrators. It is very necessary to know the Intelligence quotient and Emotional quotient of the children for the better education as well as in prediction of their future success. According to their need and mental level, the facilities will be provided to them.

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