

Research Article

A Study on Emotional Intelligence of Higher Secondary Biology Students in Cuddler District

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Abstract

The study aimed at finding the relationship between emotional intelligence and academic achievement of higher secondary biology students. Emotional intelligence scale was administered on 320 higher secondary biology students and data obtained subjected to t-test and correlation analysis. The results revealed that there is no relationship between emotional intelligence and academic achievement of higher secondary biology students.

Keywords: *Emotional Intelligence, Academic Achievement, Higher Secondary Students, Biology Education, Correlation Analysis, t-test, Secondary Education, Educational Psychology*

Introduction:

Emotional intelligence is not a new concept in psychology .Many early psychologists began their study of intelligence by directing their attention to cognitive aspects such as memory and problem solving .However, other early researchers recognized that non cognitive elements were significant. In the early 1990's Mayer and Salovey first introduced the term emotional intelligence the defamed it as a type of social intelligence that involves the ability to monitor one's own and others emotion to discriminate among them and to use this information to guide ones thinking and action. They also designed a conceptual model detailing three chief components of emotional intelligence.(1)Emotional perception (2) motional regulation (3) Emotional knowledge. The Emotional intelligence concept was popularized in the mid -1990"s by the publication of Daniel Goleman's Book, emotional intelligence.

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His ideas of emotional intelligence include Howard Garden's interpersonal and intrapersonal intelligence as well as other necessary facilities. The additional abilities are divided into five domains

1. Knowing ones emotions: The self-awareness stage where one is able to recognize a feeling as it happens.
2. Managing Emotions: The ability to handle feelings in an appropriate manner. It is very significant in relation to the ability to increase one's level of self-awareness managing emotions also involves recognizing the significance of a feeling and discovering methods of dealing with fears, anxieties, anger and sadness.
3. Motivating oneself: The extent to which one acts upon a given idea, thought, or goal.
4. Recognizing Emotions in others: Empathy involves sensitivity to others' feelings and concerns and the ability to take their perspective. This domain also involves appreciating people's differences, Mold one's Social Skill, enhance one's emphatic perspective, and increase one's Social Competence.
5. Handling Relationship: The degree to which an individual forms and maintains relationships reflects one's level of Self-awareness and Social competence. Handling relationships encompasses managing emotion in others, Social competence, and Social Skills. (Ricgburg and Fletcher, 2002).

Need and significance of the study

Education is recognized as a basic input for empowerment to individual and overall development of the society. It is one of the most important components of the society, which is directly linked with economic development and indirectly with poverty, population growth, health and crime rate (Reddy & Rao, 2003). According to National Literacy Mission (2001) only 64.8% population is literate despite the various campaigns, programmes and plan of the Government of India from time to time. Further 54% of the population is below 25 years of age. Various studies reveal that an astonishing 10 - 20% of children and adolescents have emotional, development and behavioural problems and 40% of children attending paediatric clinics have mental problems. Although there has been growing awareness of mental health needs of children and adolescents, particularly in the urban population. This awareness has not reached to the rural population, where 80% of Indian lives.

Along with barriers of literacy, localism and language, emotions also impede lateral learning among creative communities. Since the beginning of 20th Century Emotional Intelligence (EI) has been an upcoming area of research for psychologists, educationists, researchers and psychiatrists in the developed countries. Although this concept (EI) is still in its infancy stage in the developing countries whereas, it is already included in the school curriculum in several developed countries like United States of America. The research on this area reveals that Emotional intelligence is most important tool for solving day - to -day problems at School, community and Work place including prevention of drug use, high risk sexual behaviour, Violence and other Maladaptive behaviour. It has been said to matter twice as much as IQ (Goleman, 1995).

Emotional Intelligence helps the individual very much in all spheres of his life through its various constituents namely knowledge of his emotions, managing emotions, motivating oneself, recognizing emotions in others and handling relationship a higher secondary student cannot be an exception to this fact. In the case of a higher secondary student, in all sense his emotional intelligence essentially reflects his abilities to deal successfully with other students and with his own feelings. These qualities count significantly towards his success in his areas of achievement.

In the higher secondary biology subjects is very important. For studying medical courses acts as a foundation. Under these circumstances the Investigator has decided to undertake an investigation on the emotional intelligence of the higher secondary Biology Students.

Statement of the Problem:

The problem under the study is formally titled as "**A study on emotional Intelligence of higher Secondary Biology Students in Cuddalore District**".

Objectives of the study;

1. To find out the significant difference in Emotional Intelligence and academic achievement of Higher Secondary Biology Students between
 - a. Male and Female
 - b. Rural and Urban area residences
 - c. Government and Aided School

2. To find out the significant relationship between Emotional Intelligence and academic achievement of Higher Secondary biology Students with reference to
 - a. Sex- male and female,
 - b. Nativity of the learner- Rural and Urban,
 - c. Type of management -Government and Aided.

Hypothesis of the study;

1. There is no significant difference in emotional Intelligence and its dimensions of higher secondary Biology students with reference to Gender.
2. There is no significant difference in emotional Intelligence and its dimensions of higher secondary Biology students with reference to Nativity of the learner
3. There is no significant difference in emotional Intelligence and its dimensions of higher secondary Biology students with reference to type of management.
4. There is no significant difference in achievement of higher secondary Biology students with reference to (a) Sex, (b) Nativity, (c) Type of Management.
5. There is no significant relationship between emotional intelligence and academic achievement of higher secondary Biology students with reference to background variable.

Method of the study

To achieve the objectives of the study, survey method was found to be the best suited method, because the investigation was primarily concerned with the conditions and relationship existing in the present. According to Best (1986) "The Survey is important type of study. It must not be confused with the mere clerical routine of gathering and tabulating figures. It involves a clearly defined problem and definite objectives. It requires expert and imaginative planning, careful analysis and interpretation of the data gathered and logical and skillful reporting of the findings". All these considerations have led the investigator to use the survey method of research in the present study.

Population;

The population for the present study consists of students studying XI and XII standard in various institutions in Cuddalore District.

Sample:

Stratified sampling is considered as the best technique of selecting a representative sample (Kothari. 1998). Stratified sampling has been used to select the sample for the investigation. The sample for the study has been drawn from 20 Higher Secondary biology Students of cuddalore district.

Tool used

The Investigator would like to use Emotional Intelligence Scale developed by Dr. S. Arockiasamy (2006).

Emotional Intelligence Scale:

Emotional Intelligence scale consisted of 75 items under 5 dimensions namely self-awareness, self-regulation, motivation, Empathy and Social Skills. Each dimension has 15 items with three options namely 'Agree', 'Sometimes Agree' and "Disagree". All the items in this scale – were positive in nature.

Scoring;

Each item in the Emotional Intelligence Scale namely 'Agree', 'Sometimes Agree" and "Disagree" were scored as 2, 1 and 0 population an sample.

Establishing Reliability;

In order to establish reliability of the tool the translates was given to 50 higher secondary Biology students of D.G.M Higher Secondary School sethiyathope in Cuddalore. Test - retest method was adopted. The product moment correlation way used to find reliability coefficient and it was found to be 0.71 and hence reliability was established.

Statistical Techniques used;

The investigator used for the present study the following statistical techniques: Mean, Standard deviation, 't' test and correlation analysis.

Data analysis and findings

Hypothesis 1

There is no significant difference in emotional intelligence and its dimensions of Higher Secondary Biology Students with reference to Gender.

Table - 1

The significant difference in emotional intelligence and its dimensions of Higher Secondary Biology Students with reference to Gender

Emotional Intelligence	Category	N	Mean	S.D	t-value	Result
Self awareness	Male	164	22.62	4.32	3.75	S
	Female	156	24.42	4.46		
Self regulation	Male	164	23.32	4.52	1.56	NS
	Female	156	24.12	4.72		
Motivation	Male	164	22.42	5.42	1.37	NS
	Female	156	23.26	5.62		
Empathy	Male	164	23.22	5.36	1.47	NS
	Female	156	24.12	5.66		
Social Skill	Male	164	22.24	4.46	3.85	S
	Female	156	24.36	5.48		
Total	Male	164	96.62	15.12	1.14	NS
	Female	156	98.68	16.62		

(At 5% level of significance the table value of t' is 1.96}

It is inferred from the above table that there is no significant difference between Boys and Girls students in their self-regulation, motivation, empathy and total emotional intelligence. But there is significant difference between Boys and Girls students in their self-awareness and social skill.

Hypothesis 2

There is no significant difference in emotional intelligence and its dimensions of Higher Secondary Biology Students with reference to nativity of the learner.

Table - 2

The significant difference in emotional intelligence and its dimensions of Higher Secondary Biology Students with reference to nativity of the learner

Emotional Intelligence	category	N	Mean	S.D	t-value	Result
Self-awareness	Rural	145	23.16	5.32	2.15	S
	Urban	175	24.45	5.52		
Self-regulation	Rural	145	22.12	4.46	1.40	NS
	Urban	175	22.82	4.58		

Motivation	Rural	145	23.16	4.26	1.29	NS
	Urban	175	23.86	5.47		
Empathy	Rural	145	22.14	423	1.92	NS
	Urban	175	23.14	5.12		
Social Skill	Rural	145	23.22	4.62	1.82	NS
	Urban	175	24.24	5.48		
Total	Rural	145	97.44	15.52	1.11	NS
	Urban	175	99.42	16.46		

(At 5% level of significance the table value of t' is 1.96)

It is inferred from the above table that there is no significant difference between Boys and Girls students in their self-regulation, motivation, empathy, social skill and total emotional intelligence. But there is significant difference between Boys and Girls students in their self-awareness.

Hypothesis 3

There is no significant difference in emotional intelligence and its dimensions of Higher Secondary Biology Students with reference to type of management

Table - 3

The significant difference in emotional intelligence and its dimensions of Higher Secondary Biology Students with reference to type of management

Emotional Intelligence	Category	N	Mean	S.D	t-value	Result
Self-awareness	Government	154	21.12	4.28	1.86	NS
	Private	166	22.05	4.79		
Self-regulation	Government	154	22.45	4.85	1.65	NS
	Private	166	23.41	5.64		
Motivation	Government	154	20.63	4.72	1.89	NS
	Private	166	21.67	5.17		
Empathy	Government	154	20.07	5.18	1.87	NS
	Private	166	21.16	5.33		
Social Skill	Government	154	19.56	5.01	1.66	NS
	Private	166	20.56	5.74		
Total	Government	154	96.17	16.34	1.21	NS
	Private	166	98.45	17.26		

(At 5% level of significance the table value of t' is 1.96)

It is inferred from the above table that there is no significant difference between Boys and Girls students in their self-awareness, self-regulation, motivation, empathy, social skill and total emotional intelligence.

Hypothesis 4

There is no significant difference in academic achievement of Higher Secondary Biology Students with reference to (1) gender (2) nativity of the learner (3) type of management

Table - 4

The significant difference in academic achievement of Higher Secondary Biology Students with reference to (1) gender (2) nativity of the learner (3) type of management

category	N	Mean	S.D	t-value	Result
Male	164	124.58	24.11	2.08	s
Female	156	130.44	26.15		
Rural	145	123.42	23.52	1.08	NS
Urban	175	126.32	24.46		
Government	154	122.10	22.42	2.07	s
Private	166	127.42	23.56		

(At 5% level of significance the table value of t' is 1.96)

It is inferred from the above table that there is no significant difference between rural and urban students in their academic achievement. But there is significant difference between male and female, government and private students in their academic achievement

Hypothesis 5

There is no significant relationship between Emotional Intelligence and academic achievement of Higher Secondary biology Students with reference to (a) Sex - male and female, (b) Nativity of the learner - Rural and Urban, (c) Type of management -Government and Aided.

Table - 5

The significant relationship between Emotional Intelligence and academic achievement of Higher Secondary biology Students with reference to background variable

variable	N	Calculated r' value	Table value	Result
Male	164	0.136	0.139	NS
Female	156	0.134	0.139	NS
Rural	145	0.124	0.139	NS
Urban	175	0.120	0.139	NS
Government	154	0.130	0.139	NS
Private	166	0.132	0.139	NS

It is inferred from the above table that there is no significant difference between Emotional Intelligence and academic achievement of Higher Secondary biology Students with reference to background variable

Recommendations:

- * Seminars and workshops may be conducted for the purpose of enhancement of the self-awareness. Teachers can also provide tips whenever possible for the purpose of developing students' self-awareness. They can also bring to the notice of the biology students about the role of self-awareness.
- * As students are mature enough, they can be permitted to establish social relationship with one another under the guidance and direction of the teachers concerned. Group activities inside the school and social service activities outside the school premises could definitely help in enhancing the social skills of the higher secondary biology students.
- * Student should be allowed to handle their emotions with their friends, family and others independently.
- * most young people will develop and assume the responsibility for their own protection and peace of mind. But during the years of learning and practice, parents, teachers and adults need to be aware of the signs and patterns that signal danger. Awareness of adolescents stress and depression opens the door for adults to begin constructive efforts.

Conclusion:

It is worthwhile to draw some conclusion in relation to the present research. The present research is definitely an eye opener for all involved with secondary level. The study

definitely calls for a radical change in outlook in process of school education. Emotional intelligence is no longer vague psychological concept but a living reality an absolute necessity for school students. A realistic framework within various curricular activities for emotional intelligence and personality development is urgently needed. Various components of emotional intelligence that will contribute substantially to quality teaching at the secondary level must be identified. Each school must strive to train their teachers by qualified psychologists for the betterment of education at the secondary level.

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