

Emotional Intelligence Has Unswerving Rapport with Academic Performance of XI Standard Students in Biology Subject

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Abstract

Emotional Intelligence (EI) is a popular topic of debate in the field of education. It is considered as a successful predictor of academic success of every student. Researchers have claimed that EI predicts success at schools. This pilot study investigated possible relationships between the academic performance and the emotional intelligence of XI grade biology students through the use of descriptive statistics. The survey was conducted in 50 schools of Tirunelveli district of Tamil Nadu state in southern India. Subjects were selected invariably from Government, Govt. Aided and Matric Higher Secondary Schools of the district. It was found that Emotional Intelligence is to be positively associated with academic performance of the selected respondents. Also the total EI score showed a percentage of 6.9 per cent of the sample being emotionally intelligent particular students from urban area. Also, the study has shown that emotional well - being could be emphasized on academic success.

Keywords: *Emotional Intelligence, Academic Performance, XI Standard Students, Biology Subject, Tirunelveli district,*

1. Introduction

Emotional intelligence (EI) is an 'umbrella' term, encompassing aspects of previously investigated psychological constructs, such as social cognitive theory and personality trait theory [1]. Mayer and Salovey define emotional intelligence as "the ability to detect emotions, to enter and create emotions that help thinking, to understand emotions and emotional knowledge acquired, always thought to control emotions to promote emotional and intellectual development [2]. It has five sub-elements namely self-awareness, emotional management, self-motivation, empathy, interpersonal skills. To produce a competent generation and successful country in line with the philosophy of education, persistence of the emotional intelligence in student is essential. The researcher stated and proved that emotional intelligence has unswerving rapport with academic performance of XI standard students in biology subject. He conducted a survey in Tirunelveli district of Tamil Nadu state in southern India and presented the results.

2. Background of the Research

Tirunelveli district is a district of Tamil Nadu state in southern India. It borders Virudhunagar district to the north, the Western Ghats to the west, Kanyakumari district to the south and Thoothukudi district to the east [3]. According to 2011 census, Tirunelveli district had a population of 3,077,233 with a sex-ratio of 1,023 females for every 1,000 males, much above the national average of 929. The average literacy of the district was 73.88%, compared to the national average of 72.99%. Total literate in Tirunelveli district were 2,273,457 of which male and female were 1,210,710 and 1,062,747 respectively [4].

Education in Tirunelveli district in Tamil Nadu is highly advanced and for this reason the district is also known as the 'Oxford of South India'. The district of Tirunelveli has a large number of educational institutions both in the government and the private sector. There are two universities, about twenty five arts and science colleges, one medical college, Government Siddha medical college, twenty engineering colleges, one law college, about two hundred and forty one pre-primary schools, about one thousand five hundred and one primary schools, four hundred and thirty one middle schools, one hundred and fourteen high schools, one hundred and eighty five higher secondary schools and about twenty eight teachers' training institutes [4].

3. Statement of the Problem

Education plays a major role in one's life. Today the future of a student is decided by the marks he has scored in school education. Moreover, in Tirunelveli district it has been considered as the pride of the family and the excellence of the student. To accomplish the parents' wish too, the student has to attain very good marks in his school examinations. There has been substantial evidence proving that being emotionally intelligent can help individuals to excel in their schools, and later into to their life. At the school level, emotional intelligence is seen as a valuable

skill that helps students to manage and cope with the demanding nature of the academe.

Therefore, due to the many claims on the influence of emotional intelligence on academic success, this study aims to find out the impact of emotional intelligence on school students and to investigate its influence on their academic achievement in XI biology subject. Since the respondents are the next generation, it would be insightful to find out how emotionally intelligent they are and to establish whether emotional intelligence does help them to perform academically in their pursuit to attain their ambition of scoring good academic records.

4. Objectives of the Research

Objectives are the guiding force to any research. This research is guided by the following objectives.

- Investigating the relationship between the respondents' emotional intelligence and their academic achievement in Biology subject.
- Identifying the level of emotional intelligence among the respondents.

5. Review of the Related Literature

Nwadinigwe et al. presented an investigation of the impact of emotional intelligence on academic achievement of senior secondary school students in Lagos, Nigeria [5]. The purpose of the study was to examine the relationship between emotional intelligence and academic achievement among senior secondary school students. A sample of 156 participants randomly selected from three senior secondary schools was used. Questionnaire and achievement test were employed to generate data for the study. The hypotheses were tested using descriptive statistical method, analysis of covariance (ANCOVA) and Pearson product moment correlation coefficient statistics. The study revealed that there is a positive relationship between emotional intelligence skills and academic achievement such that developing emotional intelligence skills of a student will lead to the enhancement of his/her academic achievement.

Azizi Yahaya et al. examined the impact of the five emotional intelligence elements identified towards secondary school students' academic achievement [6]. This study also aimed to identify whether the five elements of emotional intelligence have been able to contribute to academic achievement. Statistical inference of the Pearson-r and multiple regression was used to analyze the data. The results showed that the significant relationship between self-awareness, emotional management and empathy with academic achievement. Research also presented a model designed to reflect the relationship between the elements of emotional intelligence and academic achievement. The author

concluded that to produce a competent generation and successful country in line with the philosophy of education, persistence of the emotional intelligence in student is essential.

Mehmet Durgut et al. carried out a survey on 177 students who were attending accounting lessons in two different state universities in Turkey [7]. It had been found that independency, self-fulfillment, social responsibility, flexibility and problem solving which are the components of emotional intelligence had an impact on the achievement of accounting subject. Therefore, the researcher concluded his research that some sub-components of the emotional intelligence were influential on accounting achievement.

Nicholls et al. purposed to scrutinise the ability of subjects studying accounting at a Canadian University to purposely modify their results on two of the most frequently used emotional intelligence tests [8]. They found that subjects can purposely change their emotional intelligence score to fit the job description and also concluded that neither instrument was clearly better than the other was in the hiring process and both required revision as potential applicants were able purposely to alter their scores.

Olatoye et al. investigated the extent to which the level of creativity and emotional intelligence influenced the level academic achievement of Higher National Diploma business administration students of Polytechnics in the South Western States of Nigeria [9]. They found that emotional intelligence has negative though insignificant relationship with business administration students' academic achievement as measured by their cumulative Grade Point Average.

Maizatul et al. explored the influence of Emotional Intelligence on academic achievement among students of Education Faculty, Universiti Teknologi Mara (UiTM) [10]. The data of the research were obtained through the use of a questionnaire which elicits information on the students' Emotional Intelligence level as well as their academic performance. The results of the study reveal that the respondents have high level of Emotional Intelligence. Two domains, self-emotion appraisal and understanding of emotion of the Emotional Intelligence were found to be significantly and positively associated with the respondents' academic achievement. The findings of the study created important implications on the value of Emotional Intelligence and their relationships to students' academic performance especially among pre-service teachers.

Bhadouria emphasised in his paper that determination of the factors which are affecting the development of emotional intelligence and its role in academic achievement for students [11]. In his research, secondary data has been collected out of which he found out the

correlation between emotional intelligence and academic achievement and teaching emotional and social skills at school not only positively influence academic achievement during the year when these were taught but also leaves the impact in long term achievement. Findings of his study presented that academic achievement without emotional intelligence does not indicate future success and absence of emotional intelligence also indicate the weak personality and ability to build relations at working place as well in schools and it was highly important for quality education.

6. Methodology

6.1 Participants

The Tirunelveli district has been divided into three educational districts namely, Tirunelveli, Tenkasi and Cheranmahadevi. It has a Chief Educational Officer from Tirunelveli and three District Educational Officers. Total number of schools of different types (Government, Govt. Aided and Matric) of higher secondary schools available and the number of schools selected for research from each educational districts are given in Table 1.

Table 1: Educational district wise total number of schools and schools selected for research.

Educational Districts	Tirunelveli		Tenkasi		Cheranmahadevi	
	Total No. of School	Select ed for Study	Total No. of School	Select ed for Study	Total No. of School	Select ed for Study
Government Schools	28	7	34	10	26	7
Govt. Aided Schools	29	5	29	5	39	6
Matric Schools	28	4	16	3	17	3
Total	85	16	79	18	82	16

The subjects were from higher secondary schools (N = 50) with 268 male students (53.6 %) and 232 female students (46.4 %). The subjects' size is 500. The research subjects are also categorized by the four major communities, Backward Class (BC – 49 %), Most Backward Class (MBC – 25.4 %), Scheduled Caste / Scheduled Tribes (SC / ST – 17.8 %) and Other Communities (OC – 7.8 %). Likewise, the researcher selected 69.6 % of the subjects, of which male – 65.67 % and female – 47.39 % from rural schools and the remaining 39.4 % of the students from the schools situated in urban areas (male – 39.66 % and female – 45.26 %).

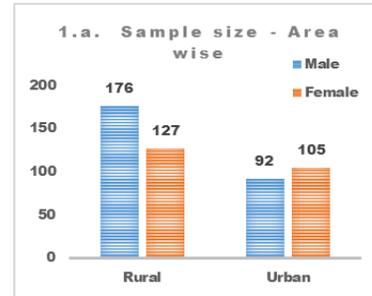


Fig. 1. a. Sample selected - Area wise

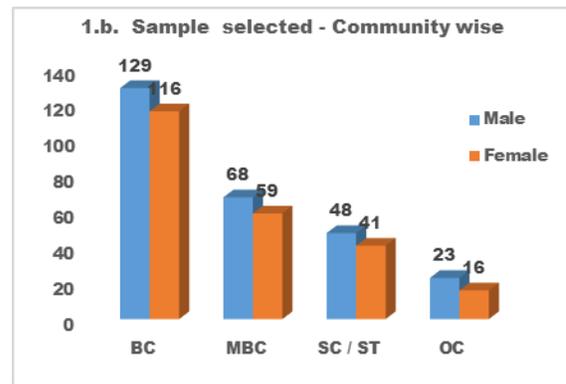


Fig. 1. b. Sample selected - Community wise

6.2 Measures

Methods used in this study was stratified random sampling based on population characteristics, and uses the form survey instrument questionnaire.

7. Findings and Discussion

Emotional Intelligence can be categorized into five aspects of the dominance of self-awareness, emotional management, self-motivation, empathy and interpersonal skills. The researcher aimed to prove the relationship of emotional intelligence of a XI standard student on his academic achievements. He framed his questioner to collect related data from the students and had some informal discussion with the students regarding their relationship with friends and peers and to understand the level of self-motivation of a student. The questioner has three responses namely Positive (Yes), Negative (No) and Natural (Don't Know).

The questioner collected from the students were analysed and the results were formulated. The collected answers were grouped based on the aspects of self-awareness, emotional management, self-motivation, empathy and interpersonal skills. The knowledge generated from the survey helped a lot to the researcher to

understand the students and motivate them towards their goal.

7. 1. Self-awareness: It is said to be the self-observation and identification of a feeling when it appears. The questions put before the students were does he monitor his activities and emotions and does it help him to improve his academic performance. 58.31 per cent of the Government Schools students of class XI gave positive answers and 35.42% provided negative answers and 6.27 per cent of them register natural answers. Likewise Govt. Aided Schools students' answers were 63.45 %, 32.04 % and 4.51% respectively. 65.02 %, 30.99 % and 3.99 % were provide by the students of Matric Hr Sec. Schools. From the result obtained, it is evident that self-monitoring of oneself helps him to improve his academic performance. The result is presented in Fig. 2 and Fig. 3.

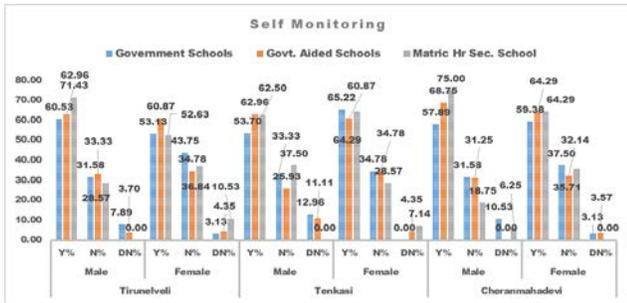


Fig. 2. Level of Self-Monitoring in XI standard students

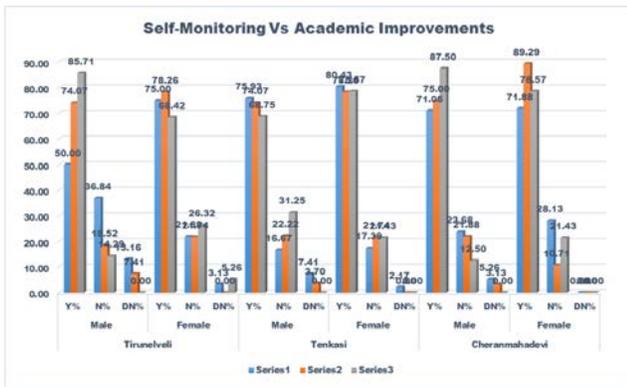


Fig. 3. Monitoring oneself helps to improve academic performance

7.2 Emotional management: The second aspect of Emotional Intelligence is Emotional Management which is the feeling that it is sufficient to handle the behaviour, recognizing the feelings behind. Students were asked to answer to the questions like they are responsible for their life and this self-management helps them to attain good score in their studies. The result were given in Table 3 and Fig. 4.

Table 3. I know that I am responsible for my life

Educational District	Tirunelveli						Tenkasi						Cheranmahadevi					
	Male			Female			Male			Female			Male			Female		
School Type	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%
Government Schools	68.42	28.95	2.63	84.38	9.38	6.25	87.04	12.96	0.00	80.43	17.39	2.17	65.79	28.95	5.26	84.38	12.50	3.13
Govt. Aided Schools	92.59	7.41	0.00	78.26	17.39	4.35	85.19	11.11	3.70	69.57	17.39	0.00	78.13	18.75	3.13	85.71	10.71	3.57
Matric Hr Sec. School	76.19	19.05	4.76	78.95	15.79	5.26	87.50	6.25	6.25	85.71	14.29	0.00	81.25	18.75	0.00	100.00	0.00	0.00

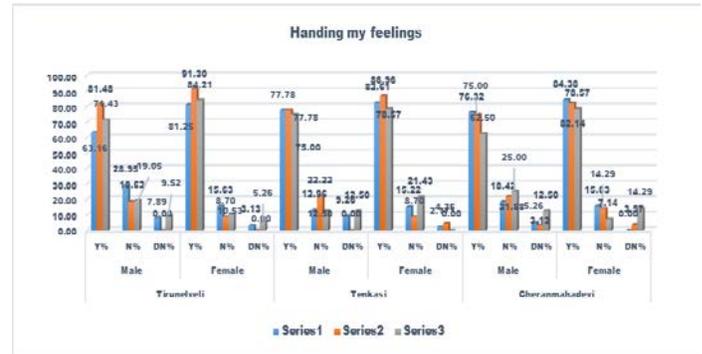


Fig. 4. Understanding and recognizing of ones feelings helps to score good marks

7.3. Self-motivation: It is the third aspect of Emotional Intelligence and is a move to the goal of positive emotions, better self-control and to delay gratification and impulse weakens. The result gained for the question about self-motivation and having self-control is tabulated in Table 4 and its relationship with scoring well is presented in Fig. 5.

Table 4. I motivate myself with positive thoughts and have self-control.

Educational District	Tirunelveli						Tenkasi						Cheranmahadevi					
	Male			Female			Male			Female			Male			Female		
School Type	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%
Government Schools	76.32	18.42	5.26	84.38	15.63	0.00	87.04	9.26	3.70	82.61	10.87	6.52	84.21	10.53	5.26	90.63	6.25	3.13
Govt. Aided Schools	88.89	11.11	0.00	95.65	4.35	0.00	81.48	18.52	0.00	91.30	8.70	0.00	78.13	18.75	3.13	96.43	3.57	0.00

Matric Hr Sec. School	61.90	28.57	9.52	78.95	15.79	5.26	87.50	12.50	0.00	92.86	7.14	0.00	75.00	12.50	12.50	78.57
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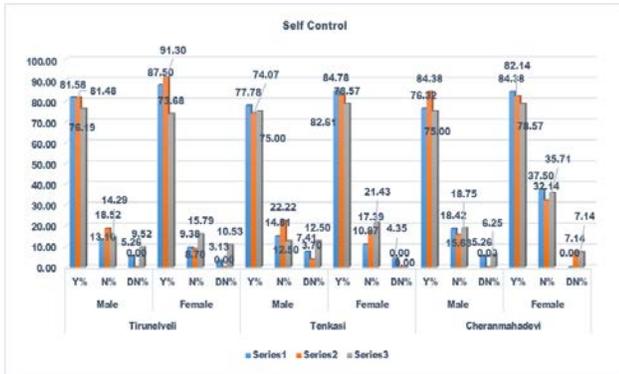


Fig. 5. Self-control helps to score well in exams.

7.4. Empathy: The fourth concept is said to be sensitive to the feelings of others, caring and accepting their perspective and appreciate the differences that exist in the feelings of others. 81.01 per cent of the Government Schools students of class XI gave positive answers and 12.63 % provided negative answers and 6.36 per cent of them register natural answers. Likewise Govt. Aided Schools students' answers were 85.42 %, 11.71 % and 2.87 % respectively. 80.32 %, 10.37 % and 9.31 % were provide by the students of Matric Hr Sec. Schools. From the result obtained, it is evident that understanding of one's peers helps him to improve his academic performance. The result is presented in Fig. 6 and Fig. 7.

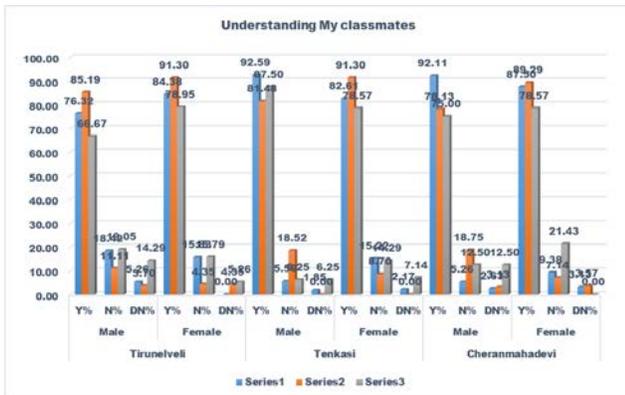


Fig. 6 I understand friends and Classmates

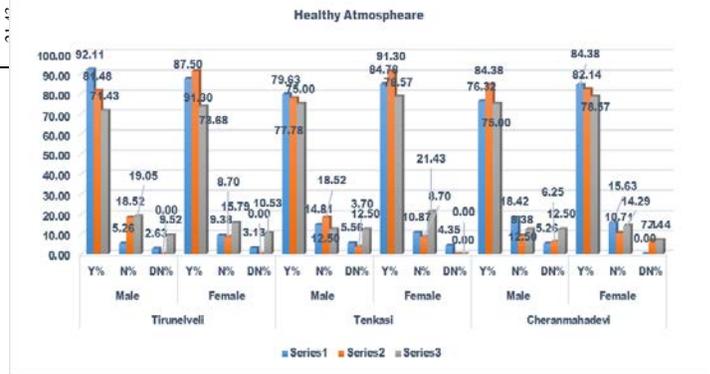


Fig.7. Understanding friends create a healthy atmosphere and helps to fare well in exams.

7.5 Interpersonal skills: It is to control the emotions of other people, have social competence and social skills. The result gained for the question about friendship is presented in Fig. 8 and its relationship with academic performance is tabulated in Table 6.

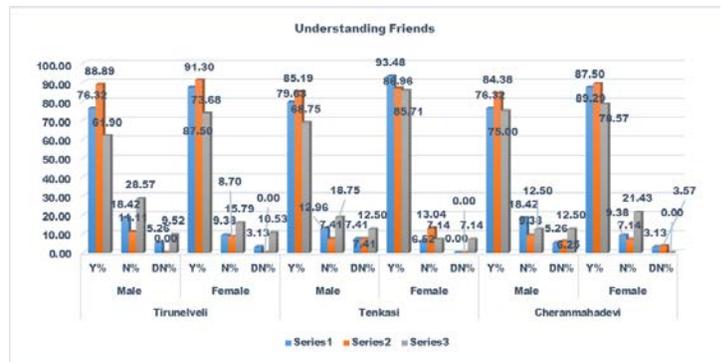


Fig. 8. Understanding friends and never try to hurt them

Table 6: Good friends circle helps in studies

Educational District	Tirunelveli			Tenkasi			Cherranmahadevi											
	Male	Female		Male	Female		Male	Female										
School Type	Y%	N%	DN%	Y%	N%	DN%	Y%	N%	DN%									
Government Schools	68.42	18.42	13.16	84.38	9.38	6.25	87.04	7.41	5.56	89.13	8.70	2.17	78.95	13.16	7.89	78.13	18.75	3.13
Govt. Aided Schools	88.89	7.41	3.70	91.30	8.70	0.00	74.07	22.22	3.70	91.30	8.70	0.00	81.25	12.50	6.25	85.71	10.71	3.57
Matric Hr Sec. Schools	76.19	14.29	9.52	78.95	15.79	5.26	87.50	12.50	0.00	85.71	7.14	7.14	75.00	12.50	12.50	78.57	0.00	21.43

8. Conclusions

Although the sample size for this study was relatively big, the fact still remains that it did not represent the totality of students. Despite this limitation, the findings of the study has shown that emotional well - being could be emphasized on academic success.

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