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Research Article

RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND ACADEMIC ACHIEVEMENTS OF STUDENTS: A STUDY

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ABSTRACT

The study is to find out the relationship between Emotional Intelligence and Academic Achievements of Students by using Descriptive Survey method. Students belonging to 1st Semester streams of Arts and Science have been surveyed in Kamrup (Metropolitan) area of Assam. The various dimensions of Emotional Intelligence have been incorporated in the Questionnaire for studying the exact relationship between Emotional Intelligence and Academic Achievements based on Streams as well as gender. For analyzing the data, various statistical methods have been applied like Chi², Z score and ANOVA.

Key Words:

Emotional Intelligence, Academic Achievement, Emotional Intelligence Scale, Emotional Quotient (EQ) and Intelligent Quotient (IQ)

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INTRODUCTION

The progress and welfare of a nation depends largely on its individuals who are intelligent, social and well adjusted to any kind of situation they face. The success and progress in an individual's life is also a contributory factor of nation's welfare. To develop a country in all its spheres, we need intelligent, competent individuals who can understand his own self, manage it efficiently, control his emotions, understand his or others emotions, managing good relationship with others etc. This will surely contribute to the human resource development of the country.

The Intelligent Quotient (IQ) was the benchmark of excellence in life in the time gone by which it was slowly replaced by a new way of thinking when psychologists found that an intelligent individual may be good in his academics but he may not be that much successful in his professional and social life. Therefore, the psychologists realized that some other factor apart from intelligence is in vogue which has got a profound impact on an individual's success in life. That factor later on came in the form of social and emotional intelligence.

If we try to find out the root of this new concept of emotional intelligence, we will have to travel back to the time of intelligence testing movement in the field of psychology. The

former name of Emotional Intelligence was Social Intelligence and this term was coined by the professor of educational psychology, Edward Lee Thorndike of Columbia University Teacher's College back in 1920. As far as his opinion, social intelligence is the ability to understand and manage men and women as well as dealing human relationships in a wisely manner (Thorndike *et al*, 1920).

After a long gap of time, Goleman in the year 1995 as well as psychologists, Mayer and Salovey during the same period again gave emphasis on Emotional Intelligence. Emotional Intelligence emerged as a multidimensional construct out of the deep thought and analysis of these three psychologists. According to this conceptualization, it consists of abilities such as being able to motivate one and persist in the face of frustrations, to control impulses and delay gratification, to regulate one's moods and keep distress from having a negative effect on the power to think, to empathize and lastly to have high hopes. Further research revealed that a person with a high emotional intelligence have a very high skill level in the form of personal competence as well as social competence. Some dimensions like managing and understanding the self i.e. self awareness, self regulation, motivation etc under personal competence are efficiently utilized in a person with high personal competence. The interpersonal relationships and

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especially its management are quite easy for a person with high social competence. Thus emotional intelligence comprises of sets of skills which are very important for a person to ascend in his life whether in personal aspect or social aspect. These skills should be identified from the very beginning of childhood, be it parents or teachers. These skills in turn can be nurtured and developed by education by using modern methods of teaching and techniques.

The concept of Emotional Intelligence is the ability to perceive, control and evaluate emotions. Emotional Intelligence can be referred to as the potential ability to predict various markers of success. The concept of Emotional Intelligence encompasses emotional expansion and regulation, self awareness and empathy.

Emotional Intelligence formed from two words, Emotion and Intelligence can be deduced to its origin. The word 'Emotion' comes from the Latin word, 'emoveo' which means 'to move from' and have a strong association with an intense sense of feelings or drama. Emotion can be considered as a complex state of human mind involving wide range of bodily changes.

The word, 'intelligence' refers to an inborn capability to think rationally and to act purposefully with a satisfactory adjustment with life whatever it provides. Thus, we can say that Emotional Intelligence is a type of intelligence or skill of an individual to rightly perceive, assess and positively influence one's own and others emotion too.

The concept of emotional intelligence is quite new and students of psychology and education can undertake lots of research in this field. Going through various definitions of emotional intelligence, we can conceptualize that emotional intelligence includes various key components like the ability to recognize, understand and express emotions and feelings; the ability to understand how others feel and relate with them; the ability to manage and control emotions; the ability to manage change, adapt and solve problems of a personal and interpersonal nature and the ability to generate positive effect and be self motivated. The Expression 'Emotional Intelligence' (EI) indicates a kind of intelligence or skill that involves the ability to perceive, assess and positively influence one's own and other people's emotions (Anuradha 2014).

It has been proved by research that emotional intelligence improves an individual's social effectiveness. A higher the emotional intelligence will always have a better social relation. A person with a high emotional intelligence can better perceive emotions, use them in thought, understand their meanings and manage emotions than his counterparts. It has also been observed that a person with high emotional intelligence does not engage in problems and avoid self destructive and negative behavior with others.

One of the leaders in Emotional Intelligence, Daniel Goleman in the year 1995 realised the importance of Emotional Intelligence and described that EQ is a more effective predictor of outstanding leadership in comparison to IQ (Goleman, 2006). According to him, Emotions plays a crucial role in thinking, decision making and the success of individuals in different fields. In the words of Goleman, "Emotional Intelligence is a set of skills which include controlling one's impulses; motivation, empathy and social competence in inter

personal relationship". Daniel Goleman states five components as essential for leadership success. The five components of Emotional Intelligence include personal (self awareness, self regulation and self motivation) and social (social awareness and social skills) competencies.

1. Self Awareness-Emotional Self Awareness, Accurate Self Assessment and Self Confidence
2. Self regulation-Self Control, Trust Worthiness, Conscientiousness, Adaptability and Innovation
3. Self Motivation-Achievement Drive, Commitment, Initiative and Optimism
4. Social Awareness-Understanding Others, Developing Others, Service Orientation, Leveraging Diversity and Political Awareness
5. Social Skill-Influence Communication, Conflict Management, Leadership, Change Catalyst, Building Bonds, Collaboration and Cooperation and Team Capabilities.

Though the terms EQ and IQ are different but they are not opposite to each other. There is a unique interaction between EQ and IQ. IQ is used to measure intelligence through various intelligence tests. The formula used for IQ test is simple and elegant. IQ is calculated by comparing an individual's 'Chronological Age (C.A)' with his or her 'Mental Age (M.A).' If a person's mental age is 40 and chronological age is 30 then,

$$\begin{aligned} \text{IQ} &= \frac{M}{C} \times 100 \\ &= \frac{4}{3} \times 100 \\ &= 133.33 \end{aligned}$$

Through research, it is observed that the average intelligence of majority of people is 100 i.e. their mental age is equal to their chronological age. IQ is a measure of Intelligence Quotient whereas EQ is a measure of Emotional Quotient. Research proves that the individual with high EQ have better chance of being successful in life. IQ and EQ are relatively independent from each other. IQ is more stable than EQ. But, high EQ creates favourable conditions to develop IQ. Psychologists do not deny the important role of IQ when combined with EQ. Studies have proved that both EQ and IQ significantly affect job performance. They suggested that data establishing the relative contribution of EQ and IQ should be balanced properly in hiring and promotional decisions (Executive Education, University of Florida). EQ principles provide a new way to understand styles, attitudes, inter personal skills and potential.

The concept of Emotional Intelligence involves not only the psychology but it has connection with different subjects like Education, Sociology, Guidance and Counseling Management, Developmental Psychology etc. Emotional Intelligence helps to know about one's behavior, attitude, inter personal skills and the attitudes and behaviors of other people also. For success in academic, professional or social life, emotional intelligence can be the only key through which success can be attained. Emotional Intelligence not only increases the productivity but it also develops leadership qualities or skills as well as it develop creativity, cooperation and innovative thinking etc.

Academic Achievement refers to the level of proficiency attained in scholastic and academic works. It is the

accomplishment or acquired proficiency in the performance of an individual in a given skill or body of knowledge. The phrase 'Academic Achievement' has been derived from the word Academy. The meaning of the word Academy means an institution where special types of instructions are imparted. Thus, Academic Achievement means knowledge attained and skill developed in the school subjects usually designed by test scores or by marks assigned by teachers or both. Academic Achievement is the criteria for selection, promotion or recognition in various walks of life. It opens up various avenues for the student to continue and getting themselves established with a sound footing in any sector.

Earlier a general concept was present that if a student has better IQ, his academic achievement will be much higher in rank. But research work conducted all across the globe revealed that Emotional Intelligence is a much more reliable predictor of Academic Achievement than General Intelligence. A shocking result was observed when it was seen that boys and girls in spite of having good IQ could not show good Academic Performance due to disturbance inflicted by the Emotions and inability to cope up with the situation. According to Duckworth and Seligman, self discipline outdoes IQ in predicting Academic performance of Adolescents (Duckworth *et al* 2005). Through these observations, the researchers concluded that emotions play the most major role in shaping the different aspects of personality, one's well being and imparting the skill to make wise decisions in life. So, we can rightfully tell that there is a very close relationship between Emotional Intelligence and Academic Achievement.

This study is focused particularly on the relationship between Emotional Intelligence and Academic Achievement of Students belonging to 1st Semester under graduate students of Gauhati University, Guwahati, Assam on both arts and science streams. The relationship of Emotional Intelligence and Academic Achievement is very important to assess the overall growth of the students. The quality of life and academic standards a student will come across during the succeeding years solely depends upon the role, the emotional intelligence plays in day to day life. This study will be beneficial and helpful to the students in improving their emotional intelligence which will be again useful in student's academic achievements.

The objectives of the study are as follows,

1. To study the Emotional Intelligence amongst students.
2. To study the Academic Achievement amongst students.
3. To study the relationship between Emotional Intelligence and Academic Achievement of students.

Hypothesis

The hypotheses of the study are as follows,

1. There is no significant difference between boys and girls in terms of Emotional Intelligence.
2. There is no significant difference between arts and science students in terms of Emotional Intelligence.
3. There is no significant difference between boys and girls in terms of Academic Achievement.
4. There is no significant difference between arts and science students in terms of Academic Achievement.

5. There is no significant difference in terms of Emotional Intelligence and Academic Achievement of Boys and Girl students in Arts and Science Streams.

METHOD

In this research, descriptive survey method was followed. The purpose of the study was to identify the relationship between Emotional Intelligence and Academic Achievement of the students. For this study, the researcher rationally used the appropriate methodology for the research work. Survey Method was used in this study.

The researcher used Questionnaire and Rating Scale as tools for in-depth study. The questionnaire used by the researcher was a standardized questionnaire developed by Dr. Shailendra Singh, Professor, Indian Institute of Management, Lucknow based on the concept developed by Daniel Goleman for collection of Primary Data. In this questionnaire, there are five dimensions to measure Emotional Intelligence namely Self Awareness, Self Regulation, Motivation, Social Awareness and Social Skills. In each dimension, there are 12 numbers of questions relating to the different aspects of emotional intelligence. This questionnaire consists of some questions regarding the emotions which aided in knowing how emotionally literate a person is. The students were asked to answer each question depending upon their own emotional responses. Response category for each question was divided into five responses like,

1. Describes me very well (5)
2. Describes me well (4)
3. Describes me moderately well (3)
4. Describes me a little (2)
5. Not at all describes me (1)

Based on the type of response to each question from the students, the 5 point rating scale (A to E) has been used. For response A, 5 marks have been assigned. Likewise, for B, C, D and E, 4, 3, 2 and 1 have been assigned respectively. This questionnaire also consists of some general questions regarding their academic standard and streams. This questionnaire also includes questions relating to scores secured by the students in Higher Secondary Final Examination in both Arts and Science streams. Secondary Data was taken from books, magazines, journals and internet sources.

Z Score, Chi ² Tests, Mean difference as well as ANOVA were used for descriptive analysis to examine the relationship between Emotional Intelligence and Academic Achievement of boys and girls in science and arts streams.

For this study, the population consists of all the 1st Semester Students of both Arts and Science students from provincialised Degree Colleges affiliated under Gauhati University, Guwahati. Total number of provincialised colleges in Assam is 189 and total number of provincialised colleges affiliated under Gauhati University is 101. In undivided Kamrup district, there are total 29 degree provincialised affiliated colleges. In Kamrup (M) district, 15 numbers of Arts and Science Degree provincialised affiliated colleges are present. The delimitation of this research work was confined only in Kamrup (M) district. Therefore around 30% of the colleges were selected as a population for the study. Colleges undertaken for the study were-

1. B. Borooah College, Ulubari, Guwahati, Kamrup (M)
2. Dimoria College, Dimoria, Sonapur, Kamrup (M)
3. Pragiyotish College, Bharalumukh, Guwahati, kamrup (M)
4. Pandu College, Pandu, Guwahati, Kamrup (M)
5. Handique Girl's College, Dighalipukhuri, Guwahati, Kamrup (M)

In this context, 5 colleges have been selected in Kamrup (M) district and 200 samples were taken into consideration. Simple random sampling was followed to collect the sample. In each college, 40 number of 1st Semester undergraduate students were selected from both arts and science streams comprising 20 numbers from each of the stream. Out of 200, 100 samples were taken from science background and the other 100 was taken from Arts. Likewise, 100 students out of 200 samples were boys and the rest were girls.

To analyse the relationship between Emotional Intelligence and Academic Achievement, the collected data from the questionnaire was tabulated systematically and after that statistical analysis were used to interpret the data.

RESULTS

In this study, the first objective was to study the Emotional Intelligence amongst students. The questionnaire tool was employed to collect the primary data. The questionnaire includes five dimensions and in each dimension, there are 12 questions systematically organized to collect the various answers related to the parameters under Emotional Intelligence. The five dimensions are Self Awareness, Self Regulation, Motivation, Social Awareness and Social Skills. Each dimension carried 60 points totaling to 300 points in the 5 point rating scale. Average value of Emotional Intelligence amongst all the 200 samples were 236.72

The first hypothesis regarding, there is no significant difference between Boys and Girls in terms of Emotional Intelligence was proved correct through the application of Chi² test and Z score but when various parameters related to varied dimensions of Emotional Intelligence was tested through Mean and Standard Deviation, following differences came into observation,

Mean value of Girls in relation to Self Awareness and Motivation was higher than the boys. Boys secured a greater mean value in terms of Self Regulation, Social Awareness and Social Skill.

Table 1 Mean and Standard Deviation of Boys and Girls in various dimensions of Emotional Intelligence

Students	Self Awareness	Self Regulation	Motivation	Social Awareness	Social Skills	Total E.I.	Mean	S.D.
Boys	4804	4751	4786	4775	4700	23816	M ₁ 4763.2	40.20821
Mean	48.04	47.51	47.86	47.75	47			
Girls	4918	4705	4789	4597	4518	23527	M ₂ 4705.4	157.367
Mean	49.18	47.05	47.89	45.97	45.18			

As per the second hypothesis, there is no significant difference of emotional intelligence between students of arts and science streams, it has been observed that though there was no significant difference between Arts and Science students in terms of Emotional Intelligence based on different levels of grades attained by students (Excellent to Below Average) by applying Chi² test, it was observed that when we applied Standard Error of difference between means, it was found that there was significant difference between the mean scores of

Arts and Science Students in different dimensions of Emotional Intelligence at 5% level of significance but no such difference has been observed at 1% level of significance. After analysis we observe that Mean value of Arts Students in relation to all the five dimensions under Emotional Intelligence was lower than the Science Students. It can be inferred from this study that science students have more Emotional Intelligence than their counterpart.

Under the second objective, one hypothesis related that there is no significant difference between boys and girls in relation to academic achievement. With the application of Z-score and Chi² test, the hypothesis has been found to be correct. The next hypothesis was related to absence of any significant difference in terms of academic achievement amongst the arts and science students, where no significant difference was found after application of Chi² test.

In this study, the 3rd objective was to study the relationship between Academic Achievement and Emotional Intelligence amongst the boys and girls of Arts and Science Streams. To analyse the 3rd Objective, the researcher studied Emotional Intelligence and Academic Achievement of the boys and girls of Arts and Science Streams by applying Analysis of Variance Test (ANOVA). The 5th hypothesis under this objective stressed upon no significant difference in terms of Emotional Intelligence and Academic Achievement of Boys and Girl students of Arts and Science Streams. Academic Achievement and Emotional Intelligence of both boys and girls have been taken into consideration and ANOVA has been applied for analyzing the same.

The critical values of F obtained by interpolation are as follows,

Critical value of F = 8.53 at 0.05 level of significance

Critical value of F = 26.12 at 0.01 level of significance

As compound value of F (21.91) is greater than critical value of F at 0.05 level of significance, it can be inferred that there is significant difference between Emotional Intelligence and Academic Achievement of Boys and Girls at 0.05 level of significance but as 21.91 is less than Critical value of F at 0.01 level of significance (26.12), we can conclude that there is no significant difference between Emotional Intelligence and Academic Achievement of Boys and Girls at 0.01 level of significance. Hence, the Null Hypothesis is rejected at 0.05 level of significance but accepted at 0.01 level of significance.

The salient findings of this study are given below,

- 14% of the students secured Excellent (90 to 99.9%), 35.5% students secured High (80 to 89.9%), 34% students secured Above Average (70 to 79.9%), 12% secured Average (60 to 69.9%) and 4.5% students secured Below Average (up to 59.9%) in respect to Emotional Intelligence.

- 3.5% of the students secured Excellent (90 to 99.9%), 17.7% secured High (80 to 89.9%), 29.5% secured Above Average (70 to 79.9%), 31.5% secured Average (60 to 69.9%) and 18% secured Below Average (up to 59.9%) in respect to Academic Achievement.
- Mean value of Girls in relation to Self Awareness and Motivation was higher than the boys. Boys secured a greater mean value in terms of Self Regulation, Social Awareness and Social Skill under Emotional Intelligence.
- 39% of Boys fall under High (80 to 89.9%) category in terms of Emotional Intelligence.
- 36% of Girls fall under Above Average (70 to 79.9%) category in terms of Emotional Intelligence.
- 37% of Boys fall under Average (60 to 69.9%) category in terms of Academic Achievement.
- 31% of Girls fall under Above Average (70 to 79.9%) category in terms of Academic Achievement.
- Analysis through ANOVA revealed that there is no significant difference between Emotional Intelligence and Academic Achievement of Boys and Girls in both Arts and Science Streams at 0.01 level of significance. It means that there is a significant relationship between Academic Achievement and Emotional Intelligence.

DISCUSSION

In this study of Relationship between Emotional Intelligence and Academic Achievement of the students, three objectives were taken into consideration as well as five hypothesis were formulated to analyze the relationship between Emotional Intelligence and Academic Achievement of the students in both Arts and Science Streams. Secondary data was collected from books, journals and internet sources. Mean value of Girls in relation to Self Awareness and Motivation was higher than the boys. The girls secured higher performance in self awareness and motivation in relation to their feelings and emotions, clear cut goals in mind, confidence in their decisions and controlling their moods and their performance to be an ideal leader. Boys secured a greater mean value in terms of Self Regulation, Social Awareness and Social Skill under Emotional Intelligence. They showed higher performance in self regulation, social awareness and social skill in relation to their controlling emotions, adjustment to problems, awareness of social relations and group performance and good communication skills in social situations. 39% of Boys fall under High (80 to 89.9%) category in terms of Emotional Intelligence and 36% of Girls fall under Above Average (70 to 79.9%) category in terms of Emotional Intelligence.

In case of Academic Achievement, 37% of Boys fall under Average (60 to 69.9%) category and 31% of Girls fall under Above Average (70 to 79.9%) category. After analysis, it has been found that there is a relationship between Emotional Intelligence and Academic Achievement of the students of both arts and science streams.

CONCLUSION

The study conducted on the relationship between Emotional Intelligence and Academic Achievement of Boys and Girls in both Arts and Science Streams with the help of various statistical methods revealed that there are some differences in relation to various dimensions of Emotional Intelligence between Boys and Girls. Girls secured much better result in Self Awareness and Motivation and on the other hand Boys secured much higher result in the field of Self Regulation, Social Awareness and Social Skills. It can be concluded that majority of Boys falls under Average category (60 to 69.9%) of Academic Achievement in place of majority of Girls who falls under Above Average category (70 to 79.9 %) of Academic Achievement. The result generated through ANOVA revealed that there is no significant difference between Emotional Intelligence and Academic Achievement of Boys and Girls in both Arts and Science Streams at 0.01 level of significance. From this, it can be inferred that there is a significant relationship between Academic Achievement and Emotional Intelligence.

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