EMOTIONAL INTELLIGENCE: A LONG-TERM GOAL OF SCHOOL EDUCATION

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Introduction

Emotional intelligence (measured as “emotional quotient” or EQ) refers to the extent of self-awareness, self-regulation, self-motivation, empathy, and skills possessed by a student. Every individual has two controlling forces: the head (responsible for intelligence quotient) and the heart (responsible for emotional intelligence). Research has suggested that no more than 25% of an individual’s success is attributable to intelligence quotient.

The “multiple intelligences” theory includes emotional intelligence and social intelligence as well. Emotional intelligence as a concept was introduced by the psychologists John D. Mayer and Peter Salovey in the 1990s, but is primarily identified with Daniel Goleman, who introduced it in his bestseller “Emotional Intelligence: Why it can Matter more than IQ”. It includes self-awareness, managing emotions, self-motivation, empathy, communicating, cooperation, resolving conflicts (Goleman, 1996; Goleman, 1998).

Emotional intelligence has also been defined as a set of abilities that involve the way in which people perceive, express, understand, and manage their own emotions as well as that of others (Cherniss, 2004).

Emotional intelligence and other non-traditional measures of intelligence and human performance are as or more predictive of academic and career success than IQ tests and other measures of scholastic aptitude (Low and Nelson, 2004). Improving emotional intelligence may also improve academic performance. Thus, there is a need to include emotional skill development in programmes designed to improve student achievement and academic success. Proactive programmes for identifying and developing emotional intelligence skills are needed. Such programmes should help students identify, learn and practice behaviours important to further success.

Can emotional intelligence be taught? Unlike intelligence quotient, emotional intelligence continues to develop throughout life and is conditioned by life’s experiences.
What are less obvious is how emotional intelligence can best be taught and how much change intervention can bring about. It appears that the process is time-consuming and difficult.

**Aims of the Study**

1. To compare emotional intelligence of students coming from schools with different Board affiliations, different faculties, and mediums of instruction
2. To determine the interactive role of faculty and gender with Board type on emotional intelligence
3. To determine the gross effect of Board type on emotional intelligence

**Objectives of the Study**

The study was conducted with the following specific objectives:

1. To compare emotional intelligence among students from schools with different Board affiliations
2. To compare emotional intelligence among students from various faculties (Arts, Science, Commerce)
3. To determine the interactive effect of faculty and Board type on emotional intelligence
4. To compare emotional intelligence among students from two mediums of instruction (English and vernacular) in students from the SSC Board (there was no student from the vernacular medium in the other Board types)
5. To determine the interactive effect of gender and Board type on emotional intelligence
6. To determine the gross effect of Board type on emotional intelligence

**Definition of Terms**

School Effectiveness: School effectiveness is defined as the extent to which the school is successful in developing emotional intelligence in students.

Relative School Effectiveness: It is defined as comparative success of the different school types by Board affiliation, viz., SSC, ICSE, CBSE and IGCSE in developing emotional intelligence in students.

School Types by Board Affiliation: School type by Board affiliation includes the Secondary School Certificate (SSC) schools affiliated to the Maharashtra State Board of Secondary and Higher Secondary Education set up by the State of Maharashtra, the Indian Certificate of Secondary Education (ICSE) schools affiliated to the Council for the Indian School
Certificate Examination, the schools affiliated to the Central Board of Secondary Education (CBSE) set up by the Central Government, and the schools providing the International General Certificate of Secondary Education (IGCSE) conducted by the University of Cambridge International Examinations.


Gross Effect Size: Gross effect size is defined as the strength of the relationship between school types by Board affiliation and emotional intelligence.

**Methodology of the Present Study**

The present study is a descriptive research. The research is aimed at comparing emotional intelligence by school types. Since it is neither practicable nor ethical to arrange occurrences, this research is an analysis of already existing conditions, that is, after the effect of the school types has already taken place.

It is also aimed at comparing emotional intelligence by faculty, medium of instruction, and gender.

Hence, it is a causal-comparative type of research.

**Tools of the Study**

The Emotional Intelligence Scale by Schutte (1998)\(^6\), a quantitative tool that has been validated and published earlier, was used by the researcher.

The tool prepared by Schutte (1998) has a total of 33 items and is based on the Likert scaling technique.\(^7\) It is a five-point rating scale with response categories as “strongly disagree”, “somewhat disagree”, “neither agree nor disagree”, “somewhat agree” and “strongly agree”. Items 5, 27, 28 and 33 were reverse scored, that is, 1 represented “strongly agree” and 5 represented “strongly disagree”. The minimum and maximum possible score were 33 and 165, respectively. Higher scores indicate greater emotional intelligence.

An example of a test item was “I know when to speak about my personal problems to others and to my colleagues”. An example of an item that was reverse coded was “When I am faced with a challenge, I give up because I believe I will fail”.

The internal consistency and test-retest reliabilities in the Indian context were 0.85 and 0.79, respectively, on a sample of 539 higher secondary school students including boys and girls.
Techniques of Data Analysis
The following techniques of data analysis were used:
Descriptive Statistics, including measures of central tendency and variability as well as estimation of population parameters.

Inferential Statistical Techniques
a. One-way analysis of variance (ANOVA)
b. Two-way ANOVA
c. Student’s $t$ test
d. Analysis of covariance (ANCOVA)
e. Cohen’s $f$

Sample of the Study
Students in the first year of education in Junior Colleges and schools are the population of the present research. Though the research aims to study the influence of school types by Board affiliation, the population consists of first-year junior college students as it enables the researcher to study the influence of school types when the students have just completed their schooling. In order to do this, the data were collected as soon as the standard XI classes began so as to avoid the influence of college characteristics on students.

The present research studies fresh students of Junior Colleges who have spent at least the last three years of their school education in one school and who have just joined First Year Junior College at the very beginning of the academic year.

The population comprises students studying in Standard XI in Junior Colleges affiliated to the Maharashtra State Board of Secondary and Higher Secondary Education and situated in Greater Mumbai, or Junior Colleges attached to schools affiliated to the Central Board of Secondary Education (CBSE) or to the International General Certificate of Secondary Education (IGCSE) situated in Greater Mumbai.

Their medium of instruction in school was classified as English or vernacular.

Results
The sample in the present study included 1063 students. Of these, data from 66 students were not included for analysis. Of the 997 students in this research, 558 (56%) were girls and 439 boys. Such a distribution was observed in the SSC (57.25%) and ICSE (56.63%) Board types, but in the CBSE Board there were more boys (51.43%), and there were equal numbers of boys and girls in the IGCSE Board type. 66.4% were from the SSC Board, followed in order
by the ICSE (19.7%), CBSE (10.5%) and IGCSE (3.4%) Boards; 534 (53.6%) were from Science faculty, 170 (17.1%) from Commerce and 293 (29.4%) from Arts.

Board Type

The measures of central tendency (mean, median, mode) and variability (SD) of raw emotional intelligence scores of students from schools of the various Board types are shown in Table 1.

**Table 1 Descriptive Statistics Of Raw Emotional Intelligence Scores Of Students By Board Types**

<table>
<thead>
<tr>
<th>BOARD</th>
<th>MEAN</th>
<th>MEDIAN</th>
<th>MODE</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSC</td>
<td>123.99</td>
<td>125</td>
<td>123</td>
<td>14.21</td>
</tr>
<tr>
<td>ICSE</td>
<td>124.53</td>
<td>123.5</td>
<td>120</td>
<td>11.57</td>
</tr>
<tr>
<td>CBSE</td>
<td>122.84</td>
<td>123</td>
<td>128</td>
<td>13.08</td>
</tr>
<tr>
<td>IGCSE</td>
<td>119.80</td>
<td>121.5</td>
<td>123</td>
<td>19.26</td>
</tr>
<tr>
<td>Total</td>
<td>123.83</td>
<td>125</td>
<td>123</td>
<td>13.82</td>
</tr>
</tbody>
</table>

Table 2 shows the comparison in emotional intelligence between students from schools affiliated to the various Board types.

**Table 2 Anova For Raw Emotional Intelligence Scores By Board Types**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among Means</td>
<td>768.1</td>
<td>3</td>
<td>256</td>
<td>1.341</td>
</tr>
<tr>
<td>Within Group</td>
<td>189600</td>
<td>993</td>
<td>190.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>190400</td>
<td>996</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tabulated F for df = (3, 993)

= 2.605 at 0.05 level

= 3.782 at 0.01 level

The F-ratio was found to be 1.341, which is not significant at 0.05 level for df = (3, 993).

There was no difference in mean raw emotional intelligence scores between the schools affiliated to the four Boards types.

Faculty

The raw emotional intelligence scores of students were classified on the basis of faculty in terms of Arts, Science and Commerce. Table 3 shows the ANOVA for raw emotional intelligence scores of students by faculty.

**Table 3 Anova For Raw Emotional Intelligence Scores By Faculty**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MSS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among Means</td>
<td>1139</td>
<td>2</td>
<td>569.7</td>
<td></td>
</tr>
<tr>
<td>Within Group</td>
<td>189200</td>
<td>994</td>
<td>190.4</td>
<td>2.993</td>
</tr>
<tr>
<td>Total</td>
<td>190400</td>
<td>996</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tabulated F for df = (2, 994)

= 2.996 at 0.05 level

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The F-ratio was found to be 2.993, which is not significant at 0.05 level for df = (2, 994). There was no difference in mean raw emotional intelligence scores between students from the various faculties.

The interactive influence of faculty in terms of Arts, Science and Commerce and of school types by Board affiliation in terms of SSC, ICSE, CBSE and IGCSE was determined. Table 4 shows the two-way ANOVA for raw emotional intelligence scores.

**Table 4 Interactive Influence Between Faculty And Board On Raw Emotional Intelligence Scores**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum-of-squares</th>
<th>Mean square</th>
<th>% of total variation</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>2</td>
<td>239.5</td>
<td>119.8</td>
<td>0.14</td>
<td>0.649</td>
</tr>
<tr>
<td>Board</td>
<td>2</td>
<td>98.41</td>
<td>49.21</td>
<td>0.06</td>
<td>0.267</td>
</tr>
<tr>
<td>Residual</td>
<td>954</td>
<td>176100</td>
<td>184.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tabulated F for df = (2, 2, 954)

= 3.04 at 0.05 level
= 4.71 at 0.01 level

The F ratio for faculty was found to be 0.649, which is not significant at 0.05 level. The F ratio for Board was found to be 0.267, which is not significant at 0.05 level.

Medium of Instruction
The raw emotional intelligence scores of students were classified on the basis of medium of instruction in terms of English and vernacular. The technique used to test this hypothesis is Student’s *t* test for unpaired data.

The tabulated *t* for df = 660 is 1.645 at 0.05 level and 2.326 at 0.01 level. The calculated *t* value was found to be 4.186, which is significant at 0.01 level. The mean raw emotional intelligence score was lower in students from the vernacular medium as compared to those from the English medium.

Gender
The interactive influence of gender in terms of boys and girls and of school types by Board affiliation in terms of SSC, ICSE, CBSE and IGCSE was determined. Table 5 shows the two-way ANOVA for raw emotional intelligence scores.
Table 5 Interactive Influence Between Gender And Board On Raw Emotional Intelligence Scores

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum-of-squares</th>
<th>Mean square</th>
<th>% of total variation</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>1577</td>
<td>1577</td>
<td>0.84</td>
<td>8.489</td>
</tr>
<tr>
<td>Board</td>
<td>3</td>
<td>1057</td>
<td>352.2</td>
<td>0.57</td>
<td>1.896</td>
</tr>
<tr>
<td>Residual</td>
<td>989</td>
<td>183700</td>
<td>185.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tabulated F for df = (3, 1, 989)

= 2.605 at 0.05 level

= 3.782 at 0.01 level

The F ratio for gender was found to be 8.489, which is significant at 0.01 level. The F ratio for Board was found to be 1.896, which is not significant at 0.05 level.

Gross Effect Size

The gross effect size of school types by Board affiliation on raw emotional intelligence scores was 0.153. The technique used to fulfil this objective is Cohen’s f test. School type had no gross effect on emotional intelligence score.

Conclusions

- There was no difference in mean raw emotional intelligence scores between the schools affiliated to the four Boards types
- There was no difference in mean raw emotional intelligence scores between students from the various faculties
- There was no interactive effect of faculty on emotional intelligence
- The mean raw emotional intelligence score was lower in students from the vernacular medium as compared to those from the English medium, in students from the SSC Board type
- There was significant interactive effect of gender on emotional intelligence
- There was no gross effect of Board type on emotional intelligence
References