



ASSESSMENT OF EMOTIONAL INTELLIGENCE OF SCHOOL CHILDREN

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ABSTRACT

The purpose of the study was to assess the Emotional Intelligence of six hundred twenty Seven school children (298 boys and 329 girls) of using Emotional Intelligence scale by Kumar and Narain (2011). The age of children ranged from 13 years to 18 years children. This scale has four dimensions i.e. understanding emotion, understanding motivation, empathy and handling relations. Data were subjected to descriptive statistics (Mean and Standard Deviation), MANOVA followed by ANOVA Least Significance Difference Test of Post-hoc Analysis. The level of significance was set at .05 level. The Descriptive analysis of data indicated that Emotional Intelligence of boys and girls of age 13 to 18 years was at moderate level. Although, Emotional Intelligence of boys of age 13 years, 14 years and 15 years was higher than Emotional Intelligence of the girls of same age. On the other hand the Emotional Intelligence of girls of age 16 years, 17 years and 18 years was higher than the Emotional Intelligence of the boys of same age groups. A multivariate analysis of variance to determine the effect of age and gender on emotional intelligence and its sub factors. The main effect of age and gender were found significant, as Wilks' Lambda = .879, $F(20, 2031) = 4.040$; .973, $F(4, 612) = 4.26$, for age and gender respectively were significant. Analysis of variance to Gender based revealed that boys and girls of 13 to 18 years of age differ significantly on Understanding Motivation and Empathy. The difference on Understanding emotions and Handling relations was statistically insignificant. Further, one way Analysis of variance according to age revealed significant difference on understanding motivation, empathy and handling relations for boys and girls of age 13 to 18 years. Whereas, the mean difference on understanding emotions among these age groups was statistically insignificant.

Key words: Emotion, Intelligence, boys, Girls, Age, Children, motivation, Empath

1. INTRODUCTION

Emotions have great role in our lives, effecting our personal and social adjustment. For a satisfactory life, the balance between needs and environment is maintained through emotions. During initial development of a child, in classroom setting the emotions have important role. Where teacher is expected to have emotional intelligence ability for promoting student's achievements.

Emotional intelligence is considered as set of self-perceived skills such as motivation, optimism, peer-relation, confidence and coping with stress which defines the personality dispositions (**Carmen, 2011**). Emotional intelligence and positive results have relationship in many areas of life like creative (**Guastello, and Hanson, 2004**) academic achievements, physical health, psychological health and self-perceived creativity (**Chang, 2005**). The self-esteem is considered as potential link between emotional intelligence and life satisfaction (**Lourdes, Natalio and Mario, 2011**). It organizes the capacity to process and adopt information effectively. Intellectual problems solving requires processing of emotion information which may be different than the non-emotional intelligence. Emotional intelligence is also considered as emotional competence for finding solutions (**Mayer and Solovey, 1993**). Emotionally intelligent person does not mean that one has no emotions or it is not express but it is the ability to subordinate the emotions for the objectives those are decided (**Elena, 2010**). Ability based measure of emotional intelligence has direct and moderate effect on individual performance like interpersonal or public speaking effectiveness.

The interaction of righteous emotional intelligence explains incremental variance both in public speaking and effective group behavior as well as academic performance. It is important that individual should have emotional intelligence and must be motivated to use it (**Joseph, 2006**). Individuals with high trait emotional intelligence measure are considered that they are in touch with their emotions, which can be controlled in such a way that promotes well-being. Thus individuals enjoy happiness of higher levels (**Adrian and Petrides, 2003**). Emotional intelligence can generate good and strong personal relationship amongst children by developing abilities to recognize, understand and to manage the emotions. The purpose of present investigation was to assess emotional intelligence of 13 years to 18 years old school going children.

2. METHODS AND MATERIALS

2.1 Subjects

Six Hundred Twenty Seven (298 boys and 329 girls) children 13 years to 18 years of age were randomly selected as subjects of the study. These children were selected from government and private schools of Jabalpur district of MP.

2.2 Measures

The Emotional Intelligence was evaluated using Emotional Intelligence Scale given by **Kumar and Narain, (2011)** and published by National Psychological Corporation Agra. This scale has four sub sections and it comprises of thirty one questions. The sub sections are; understanding emotions, understanding motivation, empathy and handling relations. Participants were asked to accurately indicate their responses from each questions "yes" and "no" basis.

2.3 Statistical Analysis

Data on Psychological well-being and its sub scale were subjected to descriptive analysis (Mean and Standard Deviation), ANOVA and followed by Least Significance Difference (LSD) Test of Post-hoc analysis were used.

3. RESULTS AND DISCUSSION

To find out the significance of differences between means of various dimensions of Emotional intelligence among boys and girls children of M.P mean, SD, ANOVA was computed. Data pertaining to these analyses have been presented in table 1 to 7.

TABLE 1
DESCRIPTIVE STATISTICS OF EMOTIONAL INTELLIGENCE OF BOYS AND GIRLS OF THIRTEEN TO EIGHTEEN YEARS OF AGE.

| Variables | Sex | 13 Years | | 14 Years | | 15 Years | | 16 Years | | 17 Years | | 18 Years | |
|--------------------------------|-----|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|
| | | M | SD | M | SD | M | SD | M | SD | M | SD | M | SD |
| Satisfaction | M | 39.46 | 6.68 | 39.58 | 7.90 | 40.44 | 4.99 | 38.24 | 6.25 | 39.54 | 5.56 | 40.55 | 6.91 |
| | F | 38.20 | 4.82 | 39.23 | 5.38 | 39.98 | 4.42 | 40.68 | 4.59 | 41.77 | 4.35 | 40.29 | 4.58 |
| Efficiency | M | 39.42 | 5.45 | 37.41 | 9.08 | 41.92 | 4.74 | 39.68 | 6.60 | 41.14 | 4.51 | 41.81 | 6.50 |
| | F | 40.18 | 5.64 | 39.98 | 5.02 | 40.57 | 5.18 | 41.56 | 3.13 | 43.54 | 3.51 | 41.64 | 4.32 |
| Sociability | M | 38.42 | 5.91 | 37.25 | 7.65 | 42.40 | 5.02 | 40.44 | 6.78 | 40.06 | 7.34 | 40.83 | 9.53 |
| | F | 39.78 | 6.77 | 37.58 | 4.99 | 39.26 | 5.55 | 37.48 | 6.02 | 37.60 | 4.51 | 41.47 | 5.99 |
| Mental Health | M | 37.74 | 7.04 | 36.68 | 8.93 | 42.04 | 6.19 | 40.18 | 4.89 | 40.18 | 6.75 | 42.95 | 6.29 |
| | F | 38.73 | 5.77 | 36.31 | 6.92 | 39.07 | 6.64 | 37.24 | 6.38 | 39.66 | 7.02 | 41.18 | 5.62 |
| Interpersonal Relation | M | 37.82 | 7.31 | 39.09 | 7.10 | 44.14 | 6.68 | 40.94 | 6.10 | 43.81 | 6.29 | 43.65 | 6.59 |
| | F | 38.59 | 5.88 | 39.70 | 6.01 | 40.82 | 6.93 | 41.50 | 5.78 | 42.14 | 4.54 | 42.50 | 3.73 |
| Total Psychological Well-being | M | 192.82 | 24.32 | 190.04 | 36.04 | 210.94 | 19.85 | 199.48 | 25.00 | 204.75 | 24.36 | 209.82 | 30.71 |
| | F | 195.50 | 20.76 | 192.82 | 21.21 | 199.73 | 20.95 | 198.46 | 18.00 | 204.73 | 14.26 | 207.10 | 14.93 |

The data on Emotional Intelligence in table-1 revealed that school children of 13 to 18 years of age when compared with norms of scale have average level (21 to 26) of Emotional Intelligence (Understanding Motivation, Understanding Emotions, Empathy and Handling Relations).

A multivariate analysis of variance to determine the effect of age and gender on emotional intelligence and its sub factors. The main effect of age and gender were found significant, as Wilks' Lambda= .879, F (20,2031) =4.040; .973, F(4,612)=4.26, for age and gender respectively were significant at .05 level.

TABLE 2
ANALYSIS OF VARIANCE ON DIFFERENT MEASURES OF PSYCHOLOGICAL WELL-BEING OF BOYS AND GIRLS OF THIRTEEN TO EIGHTEEN YEARS OF AGE

| Factor | Variables | Source of variance | df | Sum of Squares | Mean of Square | F-value |
|--------|--------------------------|--------------------|-----|----------------|----------------|---------|
| Gender | Understanding emotions | Between groups | 1 | .108 | .108 | .107 |
| | | Within group | 615 | 621.105 | 1.010 | |
| | Understanding motivation | Between groups | 1 | 7.999 | 7.999 | 4.303* |
| | | Within group | 615 | 1143.121 | 1.859 | |
| | Empathy | Between groups | 1 | 10.833 | 10.833 | 5.220* |
| | | Within group | 615 | 1276.303 | 2.075 | |
| | Handling relations | Between groups | 1 | 5.186 | 5.186 | 2.063 |
| | | Within group | 615 | 1546.319 | 2.514 | |

*Significant at .05 level.

F .05(5,615) =3.04

Analysis of data in table-2 revealed that boys and girls of 13 to 18 year of age differ significantly on two out of four measures of Emotional Intelligence i.e. Understanding

Motivation and Empathy. The differences on Understanding Emotions and Handling Relations was statistically insignificant at .05 level.

TABLE 3
ANALYSIS OF VARIANCE ON DIFFERENT MEASURES OF EMOTIONAL INTELLIGENCE OF BOYS AND GIRLS OF THIRTEEN TO EIGHTEEN YEARS OF AGE

| Factor | Variables | Source of variance | df | Sum of Squares | Mean of Square | F-value |
|--------|--------------------------|--------------------|-----|----------------|----------------|---------|
| Age | Understanding emotions | Between groups | 5 | 7.077 | 1.415 | 1.401 |
| | | Within group | 615 | 621.105 | 1.010 | |
| | Understanding motivation | Between groups | 5 | 35.594 | 7.119 | 3.830* |
| | | Within group | 615 | 1143.121 | 1.859 | |
| | Empathy | Between groups | 5 | 31.649 | 6.330 | 3.050* |
| | | Within group | 615 | 1276.303 | 2.075 | |
| | Handling relations | Between groups | 5 | 83.947 | 16.789 | 6.677* |
| | | Within group | 615 | 1546.319 | 2.514 | |

*Significant at .05 level, $F_{.05(5,615)}=3.04$

One way analysis of variance data in table-3 revealed that of boys and girls of 13 to 18 years of age differ significantly on Understanding motivation, Empathy and Handling relations, sub factor of Emotional Intelligence. Whereas, the mean difference on Understanding Emotion sub factor of Emotional Intelligence, among these age groups was statistically insignificant at .05 level.

In the case of significant F-ratio Least Significance Difference of Post- hoc comparisons were used to find out the significance of difference between ordered paired means of different age groups on understanding motivation, empathy and handling relations and the data pertaining to this has been presented in table 4 to 7

TABLE 4
SIGNIFICANCE OF DIFFERENCES BETWEEN ORDERED PAIRED MEANS OF EFFICIENCY-A SUB FACTOR OF EMOTIONAL INTELLIGENCE OF BOYS AND GIRLS OF THIRTEEN TO EIGHTEEN YEARS

| 13 years | 14 years | 15 years | 16 years | 17 years | 18 years | MD | C.I. |
|----------|----------|----------|----------|----------|----------|--------|------|
| 5.54 | 5.47 | | | | | 0.07 | 0.35 |
| 5.54 | | 5.48 | | | | 0.06 | 0.36 |
| 5.54 | | | 5.46 | | | 0.08 | 0.37 |
| 5.54 | | | | 6 | | -0.46* | 0.37 |
| 5.54 | | | | | 6.02 | -0.48* | 0.37 |
| | 5.47 | 5.48 | | | | -0.01 | 0.36 |
| | 5.47 | | 5.46 | | | 0.01 | 0.36 |
| | 5.47 | | | 6 | | -0.53* | 0.37 |
| | 5.47 | | | | 6.02 | -0.55* | 0.37 |
| | | 5.48 | 5.46 | | | 0.02 | 0.37 |
| | | 5.48 | | 6 | | -0.52* | 0.38 |
| | | 5.48 | | | 6.02 | -0.54* | 0.38 |
| | | | 5.46 | 6 | | -0.54* | 0.38 |
| | | | 5.46 | | 6.02 | -0.56* | 0.38 |
| | | | | 6 | 6.02 | -0.02 | 0.39 |

*Significant at .05 level.

Analysis of data in table-4 revealed that there is significant difference on understanding motivation between mean scores of 13 and 14 years (0.46), between 13 and 15 years (0.46), between 13 and 16 years (0.48); between 14 and 15 years (0.53), between 14 and 16 years (0.53); between 15 and 16 (0.52); and between 17 and 18 years (0.02).

Whereas, the mean difference between mean scores of 13 and 14 years (0.07), between 13 and 15 years (0.06), between 13 and 16 years (0.08); between 14 and 15 years (0.01), between 14 and 16 years (0.01), between 15 and 16 years (0.02); and between 17 and 18 years (0.02) were insignificant, as the mean difference were less than the required least significant values it to be significant at .05 levels.

TABLE 5
SIGNIFICANCE OF DIFFERENCES BETWEEN ORDERED PAIRED MEANS OF
SOCIABILITY, -A SUB FACTOR OF EMOTIONAL INTELLIGENCE OF
BOYS AND GIRLS OF THIRTEEN TO EIGHTEEN YEARS

| 13 years | 14 years | 15 years | 16 years | 17 years | 18 years | MD | C.I. |
|----------|----------|----------|----------|----------|----------|--------|------|
| 7.91 | 7.83 | | | | | 0.08 | 0.37 |
| 7.91 | | 7.77 | | | | 0.14 | 0.38 |
| 7.91 | | | 7.48 | | | 0.43* | 0.39 |
| 7.91 | | | | 7.28 | | 0.63* | 0.39 |
| 7.91 | | | | | 7.8 | 0.11 | 0.39 |
| | 7.83 | 7.77 | | | | 0.06 | 0.38 |
| | 7.83 | | 7.48 | | | 0.35 | 0.38 |
| | 7.83 | | | 7.28 | | 0.55* | 0.39 |
| | 7.83 | | | | 7.8 | 0.03 | 0.39 |
| | | 7.77 | 7.48 | | | 0.29 | 0.40 |
| | | 7.77 | | 7.28 | | 0.49* | 0.40 |
| | | 7.77 | | | 7.8 | -0.03 | 0.40 |
| | | | 7.48 | 7.28 | | 0.2 | 0.40 |
| | | | 7.48 | | 7.8 | -0.32 | 0.40 |
| | | | | 7.28 | 7.8 | -0.52* | 0.41 |

*Significant at .05 level.

Analysis of data in table-5 revealed that there is significant difference on empathy between mean scores of 13 and 16 years (0.43), between 13 and 17 years (0.63); between 14 and 17 years (0.55); between 15 and 17 (0.49), and between 17 and 18 years (0.52).

Whereas, the mean difference between mean scores was of 13 and 14years (0.08), 13 and 15years (0.14), 13 and 18years (0.11); between 14 and15 years (0.06), between 14 and16 years (0.35), between 14 and18 years (0.03), between and 15 and 16 years (0.29), between 15 and 18years (0.03); between 16and 17years (0.2) and between 16 and 18years (0.32) were insignificant, as the mean difference were less than the required least significant values it to be significant at .05 levels.

TABLE 6
SIGNIFICANCE OF DIFFERENCES BETWEEN ORDERED PAIRED MEANS OF MENTAL HEALTH - A SUB, FACTOR OF EMOTIONAL INTELLIGENCE OF BOYS AND GIRLS OF THIRTEEN TO EIGHTEEN YEARS

| 13 years | 14 years | 15 years | 16 years | 17 years | 18 years | MD | C.I. |
|----------|----------|----------|----------|----------|----------|--------|------|
| 7.11 | 7.21 | | | | | -0.1 | 0.41 |
| 7.11 | | 6.79 | | | | 0.32 | 0.42 |
| 7.11 | | | 6.27 | | | 0.84* | 0.43 |
| 7.11 | | | | 6.38 | | 0.73* | 0.43 |
| 7.11 | | | | | 6.98 | 0.13 | 0.43 |
| | 7.21 | 6.79 | | | | 0.42 | 0.42 |
| | 7.21 | | 6.27 | | | 0.94* | 0.42 |
| | 7.21 | | | 6.38 | | 0.83* | 0.43 |
| | 7.21 | | | | 6.98 | 0.23 | 0.43 |
| | | 6.79 | 6.27 | | | 0.52* | 0.49 |
| | | 6.79 | | 6.38 | | 0.41 | 0.44 |
| | | 6.79 | | | 6.98 | -0.19 | 0.44 |
| | | | 6.27 | 6.38 | | -0.11 | 0.44 |
| | | | 6.27 | | 6.98 | -0.71* | 0.44 |
| | | | | 6.38 | 6.98 | -0.6 | 0.45 |

*Significant at .05 level.

Data in table-6 revealed that there is significant difference on handling relations between mean scores of 13 and 16 years (0.84), between 13 and 17 years (0.73); between 14 and 16years (0.94), between 14 and 17years (0.83); between 15 and 16 (0.52); and between 16 and 18 years (0.71). Whereas the mean difference between mean scores of 13 and 14years (0.01), between 13 and 15years (0.32), between 13 and 18years (0.13); between 14 and 15 years (0.42), between 14 and 18 years (0.23), between 15 and 17years (0.41), between 15 and 18years (0.19); between 16 and 17years (0.11) and between 17 and 18years (0.6) were insignificant, as the mean difference were less than the required least significant values it to be significant at .05 levels.

TABLE 7
SIGNIFICANCE OF DIFFERENCES BETWEEN ORDERED PAIRED MEANS OF INTERPERSONAL RELATIONS -A SUB, FACTOR OF EMOTIONAL INTELLIGENCE OF BOYS AND GIRLS OF THIRTEEN TO EIGHTEEN YEARS

| 13 years | 14 years | 15 years | 16 years | 17 years | 18 years | MD | C.I. |
|----------|----------|----------|----------|----------|----------|--------|------|
| 23.21 | 23.47 | | | | | -0.26 | 0.96 |
| 23.21 | | 22.79 | | | | 0.42 | 0.99 |
| 23.21 | | | 22.02 | | | 1.19* | 1.00 |
| 23.21 | | | | 22.44 | | 0.77 | 1.01 |
| 23.21 | | | | | 23.43 | -0.22 | 1.00 |
| | 23.47 | 22.79 | | | | 0.68 | 0.99 |
| | 23.47 | | 22.02 | | | 1.45* | 0.99 |
| | 23.47 | | | 22.44 | | 1.03* | 1.00 |
| | 23.47 | | | | 23.43 | 0.04 | 1.00 |
| | | 22.79 | 22.02 | | | 0.77 | 1.02 |
| | | 22.79 | | 22.44 | | 0.35 | 1.03 |
| | | 22.79 | | | 23.43 | -0.64 | 1.03 |
| | | | 22.02 | 22.44 | | -0.42 | 1.04 |
| | | | 22.02 | | 23.43 | -1.41* | 1.04 |
| | | | | 22.44 | 23.43 | -0.99 | 1.05 |

*Significant at .05 level.

Analysis of data in table-7 revealed that there is significant difference on total scores of emotional intelligence between mean scores of 13 and 16 years (1.19); 14 and 16 years (1.45), 14 and 17 years (1.03) and 16 and 18 years (1.41).

The mean difference between mean scores of 13 and 14 years (0.26), between 13 and 15 years (0.42), between 13 and 17 (0.77), between 13 and 18 years (0.22); between 14 and 15 years (0.68), between 14 and 18 years (0.04); between 15 and 16 years (0.77), between 15 and 17 years (0.35), between 15 and 18 years (0.64); between 16 and 17 years (0.42) and between 17 and 18 years (0.99) were insignificant, as the mean difference were less than the required least significant values it to be significant at .05 levels.

4. DISCUSSION

The results of descriptive analysis indicated the moderate level Satisfaction, Efficiency, Sociability, Mental health and Interpersonal relation among male children of 13 to 18 years age. Where as, the girls at seventeen years had higher level of Efficiency and boys at fifteen, seventeen and eighteen years had higher level of interpersonal relations.

A multivariate analysis of variance indicated the significant main effects of age and gender as Wilks' Lambda= .817, F (25, 2271) =5.074; .953, F (5,611)=5.24, for age and gender respectively were significant.

To find out the significance of differences between gender of various age groups on five sub-factors of psychological well-being, Analysis of variance indicated the the significant differences among gender on three out of five measures of Psychological Well-being viz. Efficiency, Sociability and Mental Health where as, the mean difference on Satisfaction and Interpersonal relations sub factor of Psychological Well-being, among these age groups was statistically insignificant.

To find out the significance of differences among gender and age on five sub-factors of psychological well-being, F-ratio resulted significant differences among boys and girls of 13 to 18 years of age on Efficiency, Sociability, Mental Health and insignificant. Differences on Interpersonal relations, sub factors of Psychological Well-being.

To find out the significant of difference between ordered paired means of different age groups on these factors Least Significance Difference of Post-hoc comparisons expressed the significant variations among various age groups male and female children on on five sub-factors of psychological well-being

5. CONCLUSIONS

Within the limitation of the current study following conclusions were drawn:

1. Boys of 13 to 18 years age have moderate level of Psychological Well-being.
2. Girls of 13 to 18 years age have moderate level of Psychological Well-being.
3. Gender wise psychological well-being of girls of age groups 13 years and 14 years was higher than the boys of same age groups. Whereas, Psychological Well-being of boys of age groups 15 years, 16 years, 17 years and 18 years is higher than the groups of corresponding age groups.
4. Psychological well-being of boys and girls of 13 to 18 years has age wise variation. Initially the psychological well-being has declined in the age of 14 years when compared to 13 years of age. In the age groups of 15 years, it improved and again declined in the age groups of 16 years. Thereafter 17 years and 18 years of age groups have shown improvement in the Psychological well-being.

5. Gender wise analysis of variance data revealed that boys and girls differ on three out of five measures of Psychological Well-being viz. efficiency, sociability, and mental health. The mean difference on satisfaction and interpersonal relations a sub factor of psychological well-being among boys and girls was statistically insignificant at .05 level.
6. Age wise analysis of variance data of Psychological Well-being children 13 to 18 years of age revealed that they differ significantly on efficiency, sociability, mental health and interpersonal relations, sub factors of psychological well-being. The mean difference on satisfaction, sub factors of psychological well-being among age groups was statistically insignificant at .05 level.
7. Overall boys and girls of age groups 13 to 18 years of age have moderate level Psychological Well-being.

6. SUGGESTION

The results of this study suggest that a comprehensive approach and programmed is needs to be evolved and implemented for improving Psychological Well-being of school going children.

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