CHAPTER-4

ANALYSIS AND INTERPRETATION OF DATA

It is the prime importance in any research problem to analyze and interpret the available data. The tabulated data has no meaning unless it is analyzed and interpreted by some sophisticated statistical techniques to arrive at proper conclusions. The data must be scientifically analyzed, interpreted and rationally concluded.

Analysis is an important phase of classification and summarization of data. The analysis of data involves breaking up the complex data into simpler parts and putting them into new arrangement for the purpose of interpretation. Interpretation is the most important step in the total procedure of research. It calls for critical examination of the limitations of the results of one’s analysis in the light of one’s data collection. The process of interpretation is essential to know what do results show? What do they mean? What is there significance etc? (Good, 1966).

4.1 STATISTICAL TECHNIQUES USED

In the present study, analysis of the collected data has been done with the help of appropriate statistical techniques. The data has been subjected to the different statistical techniques as explained under:

4.1.1 Mean and Standard Deviation

Mean and standard deviation were computed to categorize the data into high emotionally intelligent and low emotionally intelligent groups.

4.1.2 Mean

The mean is one of the most widely employed measures of central tendency. The mean is actually the arithmetic average of a set of data. Researchers, oftenly employ this kind of average in describing sets of data. It is more stable index and is a single value which is a true representative of group performance. It is a score obtained by adding all measurement and divided by the number of measurements.
Mean = \frac{\sum fx}{N}

Where,

\sum fx = Sum of products of mid-points and frequencies.

N = Number of cases or frequencies.

4.1.3 Standard Deviation

Standard deviation has many uses in educational measurement. It is donated by a letter σ (small sigma) of the Greek alphabet. It is defined as, ‘the positive square root of the arithmetic mean of the squares of the deviations of the given scores from their arithmetic mean’. It is also known in short ‘root mean square deviations’.

In testing, it is most common and stable index of variability. Typically, it is used to describe variability where mean is used to describe central tendency.

Standard Deviation;

S.D. = \sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx}{N}\right)^2}

Where,

\sum fx^2 = Sum of the product of frequencies and squared deviations.

\sum fx = Sum of product of frequencies and deviation.

N = Number of Students.

i = Class interval.

4.1.4 Analysis of Variance (ANOVA)

In the present investigation, the investigator besides studying the significant mean differences in the teacher effectiveness, mental health and job stress of secondary school teachers for the main effects of emotional intelligence, gender and teaching experience was also interested to find interactional effects of emotional intelligence, gender and teaching experience on teachers effectiveness, mental health and job stress of secondary school teachers. These effects can’t be studied better than any other technique except analysis of variance. Therefore, in the present study the investigator used Three-way analysis of
variance which besides other advantages would provide concrete information about the interactional effects.

The concept of analysis of variance is propounded by Sir Ronald A Fisher (1923). According to Fisher, “The analysis of variance, which may perhaps be called a statistical method, because the term is a very ambiguous one, is not a mathematical theorem, but rather a convenient method of arranging the arithmetic. With analysis of variance, its one claim lies in its ‘convenience’. It is convenient in two ways :- (1) Because it brings to the eyes and to the mind a summary of a mass of statistical data in which the logical content of data is readily appreciated. (2) Apart from aiding the logical process, it is convenient in facilitating and reducing to a common form all the tests of significance which we may want to apply”.

4.1.5 Advantages of analysis of variance

I. The analysis of variance is the most powerful technique, which is used in variety of research task. The most popular use of analysis of variance is to test for mean differences between more than two groups, which has been exposed to different experimental treatment. It is an overall test of significance.

II. The use of ANOVA facilitates to study the joint influence of number of factors technically known as interactions. The interaction may be between two or more than two number of variables.

III. When there are many results to be compared, the use of analysis of variance is a time saver and also involves less risk of type 1 error i.e. when we rejected the null hypotheses at small values to be significant at 0.05 level of confidence.

IV. It presents to the mind summary of a mass of statistical data in which the logical content of the whole is appreciated.

V. Apart from aiding to the logical process, it is convenient in facilitating and reducing to a common from all the test of significance which one wants to apply.

VI. Another advantage of ANOVA is the use of randomized block design, this method tends to lessen the risk of type 2 error i.e. failing to reject the null hypothesis.

4.1.6 Assumptions of analysis of variance
While using analysis of variance as a statistical technique for studying mean differences among more than two groups, the following assumptions should be met.

I. Independence of Group: It is assumed that the groups selected should be made up of randomly selected subjects and are independent. The observations being independent and have the equal chances to occur. For example, if the researcher wishes to select two groups of teachers, one from rural and another belonging to urban, they must be chosen randomly from the respective population. This assumption is the key stone of analysis of variance technique.

II. Homogeneity of variance: It means variance within the set should be equal. It is assumed that the populations from which groups have been selected have equal variance.

III. Normality of Distribution: The sample selected from the population should have normal distribution. Violation of this assumption makes the results appear somewhat, more significant than what they are actually.

IV. Additivity: The calculation of variance in the total sample must be additive, i.e. the sum of square would never appear with negative signs.

4.1.7 General steps for computation of three way analysis of factorial experiment.

Following are the general computational steps employed in three way ANOVA factorial experiment

1) Correction or \( C = \frac{\sum X^2}{N_T} \) ….. 4.1

2) Sum of squares for total (SS\(_T\)) = \( \sum X_T - C \) ….. 4.2

3) Sum of squares for treatment or between

\[
SS_{Bet} = \frac{(\Sigma A_i B_i C_i)^2}{n} + \frac{(\Sigma A_i B_i C_j)^2}{n} + \frac{(\Sigma A_i B_i C_k)^2}{n} + \frac{(\Sigma A_i B_i C_l)^2}{n} + \\
\frac{(\Sigma A_i B_i C_j)^2}{n} + \frac{(\Sigma A_i B_i C_k)^2}{n} + \frac{(\Sigma A_i B_i C_l)^2}{n} + \frac{(\Sigma A_i B_i C_j)^2}{n} + \\
\frac{(\Sigma A_i B_i C_k)^2}{n} + \frac{(\Sigma A_i B_i C_l)^2}{n} \]

….. 4.3

4) Sum of squares for within (SS\(_W\)) = SS\(_T\) - SS\(_{Bet}\) ….. 4.4

5) Sum of square for A (SS\(_A\)) = \( \frac{(\sum X)^2}{n} + \frac{(\sum X)^2}{2} - C \) ….. 4.5
6) Sum of squares for B(SS_B) = \( \left( \frac{\Sigma B}{n} \right)^2 + \left( \frac{\Sigma B}{n} \right)^2 - C \) ..... 4.6

7) Sum of squares for cells

\[ SS_{Cell} = \left( \frac{\Sigma A B_1}{n} \right)^2 + \left( \frac{\Sigma A B_2}{n} \right)^2 + \left( \frac{\Sigma A C_1}{n} \right)^2 + \left( \frac{\Sigma A C_2}{n} \right)^2 - C \] ..... 4.7

8) Sum of interaction \( SS_{(AxB)} = SS_{cells} - SS_A - SSB \) ..... 4.8

9) Sum of squares for c (SSc) = \( \left( \frac{\Sigma C}{n^2} \right) \) ..... 4.9

10) Sum of squares for cells

\[ SS_{cell} = \left( \frac{\Sigma A C_1}{n} \right)^2 + \left( \frac{\Sigma A C_2}{n} \right)^2 \] ..... 4.10

11) Sum of squares for interaction (SS_{AxC}) = SS_{cell} - SSc ..... 4.11

12) Sum of squares for cells

\[ SS_{Cells} = \left( \frac{\Sigma B C_1}{n} \right)^2 + \left( \frac{\Sigma B C_2}{n} \right)^2 \] ..... 4.12

13) Sum of squares for interaction

\( SS_{BxC} = SS_{cells} - SS_B - SS_C \) ..... 4.13

14) Sum of Squares for triple interaction

\[ SS_{AxBxC} = SS_{Bet} - (SS_A + SS_B + SS_C + SS_{AxB} + SS_{AxC} + SS_{BxC}) \] ..... 4.14

4.1.8 Computation of Three Way Analysis of Variance (2x2x2 Factorial Experiment)

For the present analysis of the data the investigator used Three - Way Analysis of Variance (2x2x2 Factorial Experiment) with equal N for accomplishment of the objectives of the present investigation.

4.2 Design of the study

```
\text{Emotional Intelligence}
```

\text{HEI} \quad \text{LEI}
HEI= High Emotional Intelligence.
LEI= Low Emotional Intelligence.
M= Male
F= Female
Teaching experience (1-13 Yrs) & Teaching experience (16- Onwards)

4.3 STATISTICAL ANALYSIS

The statistical analysis has been presented in three sections.

Section-1

Objective: To study the significance of mean difference in teacher effectiveness scores of secondary school teachers for the main and interaction effects of emotional intelligence, gender and teaching experience.

Hypotheses: There will be no significant difference in mean teachers effectiveness scores of secondary school teachers for the main and interactional impact of emotional intelligence, gender and teaching experience.

Table 4.1 Summary of Three-Way ANOVA (2x2x2 Factorial Design) in respect of teacher effectiveness in relation to emotional intelligence, gender and teaching experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>D</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(Teaching Exp.</th>
<th>(Teaching Exp</th>
<th>(Teaching Exp</th>
<th>(Teaching Exp</th>
<th>(Teaching Exp</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-13 Yrs)</td>
<td>16 Yrs-onwards)</td>
<td>1-13 Yrs)</td>
<td>16 Yrs-onwards)</td>
<td></td>
</tr>
<tr>
<td>(Teaching Exp.</td>
<td>(Teaching Exp</td>
<td>(Teaching Exp</td>
<td>(Teaching Exp</td>
<td></td>
</tr>
<tr>
<td>(1-13 Yrs)</td>
<td>16 Yrs-onwards)</td>
<td>1-13 Yrs)</td>
<td>16 Yrs-onwards)</td>
<td></td>
</tr>
<tr>
<td>Factor</td>
<td>Mean</td>
<td>df</td>
<td>Significance</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
<td>----</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence (A)</td>
<td>9834.6</td>
<td>1</td>
<td>20.36 Significant*</td>
<td></td>
</tr>
<tr>
<td>Gender (B)</td>
<td>4882.8</td>
<td>1</td>
<td>10.11 Significant*</td>
<td></td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>127.5</td>
<td>1</td>
<td>0.26 Not Significant</td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence x Gender (A x B)</td>
<td>02.00</td>
<td>1</td>
<td>0.004 Not Significant</td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence x Teaching Experience (A x C)</td>
<td>2726.1</td>
<td>1</td>
<td>5.64 Significant*</td>
<td></td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>1132.5</td>
<td>1</td>
<td>2.34 Not Significant</td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>1629.7</td>
<td>1</td>
<td>3.37 Not Significant</td>
<td></td>
</tr>
<tr>
<td>Within treatments</td>
<td>34835</td>
<td>72</td>
<td>483</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55170.2</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.

Table 4.2 mean values of teacher effectiveness scores.

<table>
<thead>
<tr>
<th></th>
<th>A₁ High Emotionally Intelligent</th>
<th>A₂ Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B₁ Males</td>
<td>B₂ Females</td>
</tr>
<tr>
<td>C₁ Teaching Experience (1-13 Yrs)</td>
<td>296.0</td>
<td>295.4</td>
</tr>
<tr>
<td>C₂ Teaching Experience (16 Yrs – onwards)</td>
<td>288.6</td>
<td>321.1</td>
</tr>
</tbody>
</table>

A₁ High EI =300.27  B₁ Males = 281.37  C₁Teaching Exp. (1-13Yrs) =290.45
A₂ Low EI=278.1     B₂ Females=297.00   C₂Teaching Exp. (16 Yrs – onwards) =287.92
Main Effects

Emotional Intelligence (A)

An examination of table 4.1 shows that the value of F for the main effect of variable emotional intelligence is 20.36 which is significant at 0.01 level of significance. It can thus be said that there exists significant difference in teacher effectiveness of teachers with high and low level of emotional intelligence. Furthermore, table 4.2 exhibits that mean values of teacher effectiveness with high and low level of emotional intelligence are 300.27 and 278.1 which specifies that teachers with high emotional intelligence are more effective in comparison to those with low emotional intelligence. Hence the hypothesis that there will be no significant difference in teacher effectiveness among secondary school teachers belonging to high and low level of emotional intelligence group was rejected.

One of the objectives of the study was to investigate the effect of emotional intelligence on the teacher effectiveness of secondary school teachers. On analysis, the teachers with high emotional intelligence have been found to have more teacher effectiveness. The result is not unexpected. A teacher needs awareness of his / her emotions, values and as a teacher, consciousness of his / her conduct and how others see him. The findings of the study validate the opinion of Mortibois (2005) that teachers with high EI competences are hopeful, adjustable, work jointly with others, self-assured, open, friendly and easy to talk to and eager to do things. They have better communication skills, better abilities to resolve the dispute by negotiations (Ming, 2003). The findings of this study are likewise in accordance with that of Birol et al., (2009) who believe that emotional intelligence of teacher is vital in effective teacher communication, in decreasing stress and conflict and in accomplishing positive work environment and scholastic success. The results support the claim of Slaski & Cartwright (2002); Nikolaou & Tsaousis (2002); Salami (2010) and Jha & Singh (2012) that emotional intelligence of teacher helps in staying away from emotional fatigue and conflict with others which subsequently assists in better adapting to stress & burnout thus enhancing achievement. While the intellectual standard and subject expertise of
teachers are important there are undoubtedly other qualities as well, that predict future
teacher effectiveness, which require a mix of intellectual and personal attributes,
(Zumwalt & Craig, 2005). The results of the study show that higher the emotional
intelligence, the better teacher effectiveness is. This is due to the reason that
emotionally intelligent teachers seek to have confidence not just in their content and
materials but also in their flexibility & readiness to respond. They put energy not only
into getting materials & method planned but also into preparing to meet learners
expectations (Jensen, 1998). Emotional management may underline the capacity of a
teacher to be inspirationally motivating and encouraging. It is because teachers who are
able to manage positive and negative emotions within themselves are able to
understand the effect of positive and negative emotions on their work performance &
relations with others. Managing relations develops a better understanding between
teachers and students creating a congenial environment in the class (Jha & Singh,
2012). Research supports that knowledge of self helps faculty members recognize the
strengths and short comings of their present teaching performance and provides
guidance for future refinement. Knowing one’s emotional strengths & weakness is of
big help because the person has to persistently respond to the outer world. If one can’t
interpret one’s own emotions, he or she may not be able to do the same for others
(Carver, 2003). This decreases effectiveness in handling interpersonal relationships. A
teacher who has better knowledge of his emotions also has a better knowledge of
emotions of his / her students & colleagues which helps to deal effectively with
conflicts (Welch, 2003) and create situations for better achievement. The results are
also in concurrence with those of Kauts & Chechi (2014) who also reported that
teachers with low emotional intelligence were less successful in teaching than teachers
with high emotional intelligence.

Gender (B)

It is observed from table 4.1 that the value of F for the main effects of variable
gender is 10.11 which is significant at 0.01 level of significance. The data disclosed that
there existed a significant mean difference in teacher effectiveness among secondary
school teachers with regard to gender. Furthermore table 4.2 disclosed that mean value
of teacher effectiveness of male and female is 281.37 and 297. It can thus be said that female teachers are more effective in comparison to male teachers. Hence the hypothesis there will be no significant mean difference in teacher effectiveness among secondary school teachers with respect to gender was rejected.

Female teachers are found to have more teacher effectiveness than male teachers. The results support the findings of Brenner and Salovey (1997) who have indicated that females have more teacher effectiveness than males but not in concurrence with the finding of researches of Halpern et al. (2007) and Ceci & Williams (2010) who stated that because of early experience, biological factors, education policy and cultural factor, the expected success of females in a given scientific tasks is generally lower than that of their male counterparts regardless of the fact that they are equally capable. The findings of the study are also in conflict with the results of Jha & Singh (2012) which reported no significant differences in the teacher effectiveness of male and female faculty members. It may be because of the reason that with changing social conceptions, gender stereotypes are also changing.

**Teaching experience (C)**

A close glance of table 4.1 depicts that the value of F for the main effects of variable teaching experience is 0.26 which is not significant. It can thus be interpreted that level of teaching experience does not impact significantly teacher effectiveness of secondary school teachers. Hence the hypothesis that there will be no significant difference in teacher effectiveness of secondary school teachers with respect to experience was acknowledged.

The results of the study showed that length of teaching experience does not influence teacher effectiveness scores. It may be because of the reason that young teachers are more exposed to ICT, are more oriented to professional development and willing to take challenges which develop competencies in them. The outcomes are not in concurrence with the findings of Tsui (1995), who using a changed version of the Teacher Effectiveness Scale, found that “years of teaching experience in a teaching
setting is an overriding factor in moulding one’s feelings of teaching efficacy”. The results are not in concurrence with those of Kauts & Chechi (2014) who reported that more experienced teachers were found to be more successful than less experienced teachers.

**Interactions**

**Emotional intelligence and gender (A x B)**

A close look of table 4.1 shows that the value of F for the interaction effect of variable emotional intelligence and gender is 0.004 which is not significant. It can thus be said that there exists no significant mean difference in the teacher effectiveness among secondary school teachers due to joint effect of emotional intelligence and gender. Hence the hypothesis that there will be no significant interaction effect of emotional intelligence and gender on teacher effectiveness was acknowledged.

**Emotional intelligence and teaching experience (A x C)**

A close look of table 4.1 revels that the value of F for the interaction effect of variable emotional intelligence and experience is 5.64 which is significant at 0.05 level of significance. It can thus be said that emotional intelligence and experience when interacting together influenced the effectiveness of secondary school teachers. Thus the hypothesis that there will be no significant interaction effect of emotional intelligence and experience on teacher effectiveness was rejected.

These results are in concurrence with the study of Hoy & Woolfolk (1993), which using a shortened version of the Teacher Effectiveness Scale, showed correlation between personal teacher self efficacy and years of teachers experience. Emotional intelligence may be a key element in teacher’s sense of efficacy.

**Gender and teaching experience (B x C)**

Table 4.1 further exhibits that the value of F for the interaction effect of variable gender and experience is 2.34 which is not significant. It can hence be said that gender and experience when interacted jointly did not influence the effectiveness of secondary
school teachers. Hence the hypothesis that there will be no significant interaction effect of gender and experience on teacher effectiveness was accepted.

These results are not in agreement with the studies of Imants & De Brabander (1996) who using a modified version of the Teacher Effectiveness Scale, concluded that several factors influence & impact on teacher self efficacy. These include position in the school hierarchy, gender & years of experience.

**Emotional intelligence, gender and teaching experience (A x B X C)**

Close examination of table 4.1 reveals that the value of F for the triple interaction effect of variable emotional intelligence, gender and experience for teacher effectiveness is 3.37 which is not significant. It can hence be said that there exists no significant differences in mean teacher effectiveness scores of secondary school teachers due to triple interaction of emotional intelligence, gender and teaching experience. Hence the hypothesis that there will be no significant interaction effect of emotional intelligence, gender and experience on teacher effectiveness was accepted.

The above results are in concurrence with the studies of Imants & De Brabander (1996) who using a modified version of the TES, concluded that several factors influence & impact on teacher self efficacy. These include position in the school hierarchy, gender & years of experience.
Fig 1 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on teacher effectiveness.
Fig 2 Showing mean comparison of male & female secondary school teachers on teacher effectiveness.
Fig 3 Showing mean comparison of secondary school teachers having different levels of teaching experience on teacher effectiveness.
Section-2

Objective: To study the significance of mean difference in mental health (composite mental health and different dimensions of mental health separately) of secondary school teachers for the main & interaction effect of emotional intelligence, gender and teaching experience.

Hypothesis: There will be no significant mean difference in mental health scores (composite mental health & different dimensions of mental health) of secondary school teachers when emotional intelligence, gender and teaching experience will be taken as independent variables.

Table 4.3 Summary of Three-Way ANOVA (2x2x2) Factorial Design for mental health in relation to emotional intelligence, gender and experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>44745.8</td>
<td>1</td>
<td>44745.8</td>
<td>125.5</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>198.42</td>
<td>1</td>
<td>198.42</td>
<td>0.55</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>1901.2</td>
<td>1</td>
<td>1901.2</td>
<td>5.33</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>1940.48</td>
<td>8</td>
<td>1940.48</td>
<td>5.44</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>1110.1</td>
<td>1</td>
<td>1110.1</td>
<td>3.11</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>1125.08</td>
<td>1</td>
<td>1125.08</td>
<td>3.15</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>1767.12</td>
<td>2</td>
<td>1767.12</td>
<td>4.95</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>25665</td>
<td>72</td>
<td>356.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.

Table 4.4 mean values of mental health scores.

<table>
<thead>
<tr>
<th></th>
<th>A&lt;sub&gt;1&lt;/sub&gt; High Emotionally Intelligent</th>
<th>A&lt;sub&gt;2&lt;/sub&gt; Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B&lt;sub&gt;1&lt;/sub&gt; Males</td>
<td>B&lt;sub&gt;2&lt;/sub&gt; Females</td>
</tr>
<tr>
<td>C&lt;sub&gt;1&lt;/sub&gt; Teaching Experience (1-13 Yrs)</td>
<td>175.7</td>
<td>165.5</td>
</tr>
<tr>
<td>C&lt;sub&gt;2&lt;/sub&gt; Teaching Experience (16 Yrs – onwards)</td>
<td>161.1</td>
<td>184.7</td>
</tr>
</tbody>
</table>

A<sub>1</sub> High EI =171.7  B<sub>1</sub> Males = 149.6    C<sub>1</sub> Teaching Exp. (1-13 Yrs) =143.2
A<sub>2</sub> Low EI=124.4  B<sub>2</sub> Females=146.5   C<sub>2</sub> Teaching Exp. (16 Yrs – onwards) =152.9

**Main Effects**

**Emotional intelligence (A)**

A close examination of table 4.3 reveals that the value of F for the variable emotional intelligence is 125.5 which is significant at 0.01 level of significance for df 1 & 72. It can hence be said that there exists significant mean difference in mental health of secondary school teachers with high and low level of emotional intelligence. Furthermore, table 4.4 reveals that mean value of mental health with high and low emotional intelligence is 171.7 and 124.4 respectively. This indicates that teachers with high emotional intelligence are having better mental health than teachers having low emotional intelligence. Hence the hypothesis there will be no significant difference in mean mental health scores of secondary school teachers belonging to high and low emotional intelligence group was rejected.
The finding of the study support positive impact of emotional intelligence on mental health. This finding is in line with Bar-On, 2001; Goleman, 1995; Martinez-Pons, 1997; Palmer et al., 2002 & Loannis, 2005. In the findings the teachers with high emotional intelligence have been found to be more mentally healthy. The result is not unexpected. Research support that awareness of self and others, professional orientation and interpersonal and intrapersonal management develops positive self concept, better perception of others and good personal adjustment. The results are also in line with the findings of Mohammadyfar et al. (2009) who reported that teachers who had better emotional intelligence had better mental health. In agreement with the findings Salovey, Bedell, Detweiler and Mayer (1999) believed that individuals who can regulate their emotional states are healthier because they accurately perceive and appraise their emotional states, know how & when to express their feelings, and can effectively regulate their mood states. The results also support the findings of Gupta & Kumar (2010) who stated that emotional intelligence was positively and significantly related with mental health and all its dimensions and that of Ciarrochi, Deane and Anderson (2002) who found that emotional intelligence moderates the link between stress & mental health. The direct relationship between emotional intelligence and mental health may support the value of teaching emotional intelligence. Increased feeling of control and competence should lead, in turn, to more active effective coping, and to better mental health outcomes. Learning to trust in their emotional knowledge may be especially beneficial for some of the overwhelmed individuals. The present study shows the adaptive value of adequately managing one’s emotions. Specifically these results provide support for the notion that more emotionally intelligent individuals i.e. those who have an adequate capacity to understand and regulate their emotions, will cope better with stressing demands and will manage their negative emotions better. All this has important relevance with maintaining and promoting teacher’s mental health & physical health

**Gender (B)**

A perusal of table 4.3 indicates that the value of F for the main effect of variable gender is 0.55 which is not significant. It shows that there exists no significant gender difference in mental health of secondary school teachers. Moreover, table 4.4 reveals
that the mean values of mental health of male and the female teachers are 149.6 and 146.5. Hence the hypothesis that there will be no significant gender differences in mental health of secondary school teachers was accepted.

The results are not in agreement with the study of Prathima and Kulsum (2013) who examined the relationship between secondary school teachers’ social intelligence and their mental health. The significant differences existed between male and female secondary school teachers’ mental health.

**Teaching Experience (C)**

An observation of table 4.3 reveals that the value of F for the variable teaching experience is 5.33 which is significant at 0.05 level of significance for df 1 & 72. It can thus be interpreted that there exists significant differences in mental health of teachers having different level of teaching experience.

Furthermore, table 4.4 indicates that the mean values of mental health of teachers having teaching experience 1-13 years are 143.2 and those of teachers having teaching experience 16 years onwards are 152.9. It can be interpreted that teachers having more teaching experience are having better mental health than teachers having less teaching experience. The results are not surprising. A more experienced teacher can better cope up with difficult situations in teaching & life and can stay mentally healthy. The hypothesis that there will be no significant differences in mental health of teachers with different levels of teaching experience was rejected.

**Interactions**

**Emotional intelligence and Gender (A x B)**

A close examination of table 4.3 reveals that the value of F for the interaction effect of emotional intelligence and gender on mental health is 5.44 which is significant at 0.05 level of significance. So it can be said that there exists significant difference in the mental health of secondary school teachers due to the interaction effect of emotional intelligence and gender. Therefore, the hypothesis that there will be no significant interaction between emotional intelligence and gender when mental health of secondary school teachers will be taken as dependent variable was rejected.
Emotional Intelligence and Teaching Experience (A x C)

A close examination of table 4.3 reveals that the value of F for the interaction effect of variable emotional intelligence and experience on mental health is 3.11 which is not significant. It discloses that there exists no significant difference in mental health of secondary school teachers due to interaction effect of emotional intelligence & teaching experience. The null hypothesis of no significant interaction effect of emotional intelligence and teaching experience on mental health of secondary school teachers was accepted.

Gender and Teaching Experience (B x C)

A close examination of table 4.3 reveals that the value of F for the interaction effect of variable gender and teaching experience is 3.15 which is not significant. It can hence be said that there exists no significant differences in mental health of secondary school teachers due to the interaction effect of gender and teaching experience. Thus, the hypothesis that there will be no significant interaction effect of gender and experience when mental health of secondary school teachers will be taken as dependent variable was accepted.

Emotional intelligence, Gender and Teaching Experience (A x B x C)

A persual of table 4.3 reveals that the value of F for the interaction effect of variables emotional intelligence, gender and teaching experience is 4.95 which is significant at 0.05 level of significance for df 1 & 72. It indicates that there is significant interaction effect of the variables i.e. emotional intelligence, gender and length of teaching experience on mental health of secondary school teachers. The null hypothesis formulated in this case was rejected.
Fig 4 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on Mental health.
Fig 5 Showing mean comparison of male & female secondary school teachers on Mental health.
Fig 6 Showing mean comparison of secondary school teachers having different levels of teaching experience on Mental health.
Section – 2(a) Self-concept dimension of mental health

Table 4.5 Summary of Three-Way ANOVA (2x2x2 Factorial Design) in respect of self concept dimension of mental health in relation to emotional intelligence, gender and teaching experience

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>510</td>
<td>1</td>
<td>510</td>
<td>78.4</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>48</td>
<td>1</td>
<td>48</td>
<td>7.38</td>
<td>Significant. *</td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>31.2</td>
<td>1</td>
<td>31.2</td>
<td>4.8</td>
<td>Significant. *</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>80</td>
<td>1</td>
<td>80</td>
<td>12.3</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>1.8</td>
<td>1</td>
<td>1.8</td>
<td>0.27</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>9.8</td>
<td>1</td>
<td>9.8</td>
<td>1.5</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>11.4</td>
<td>1</td>
<td>11.4</td>
<td>1.75</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>475</td>
<td>72</td>
<td>6.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1167</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.

Table 4.6 mean values of self concept scores.

<table>
<thead>
<tr>
<th>C1 Teaching Experience (1-13 Yrs)</th>
<th>A1 High Emotionally Intelligent</th>
<th>A2 Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B1 Males</td>
<td>B2 Females</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>15.1</td>
<td>17.2</td>
</tr>
<tr>
<td>C&lt;sub&gt;2&lt;/sub&gt; Teaching Experience</td>
<td>15.2</td>
<td>20.2</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>(16 Yrs – onwards)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A<sub>1</sub>, High EI = 16.92   B<sub>1</sub>, Males = 13.62   C<sub>1</sub>, Teaching Exp. (1-13 Yrs) = 13.77
A<sub>2</sub>, Low EI = 11.87   B<sub>2</sub>, Females = 15.17   C<sub>2</sub>, Teaching Exp. (16 Yrs – onwards) = 15.02

**Main Effects**

**Emotional Intelligence (A)**

A close examination of table 4.5 reveals that the value of F for the variable emotional intelligence is 78.4 which is significant at 0.01 level of significance for the df 1 & 72. It can thus be said that there exists significant difference in self concept dimension of mental health of teachers with high and low level of emotional intelligence. Moreover, table 4.6 reveals that mean values of self concept with high and low level of emotional intelligence are 16.92 and 11.87 respectively. This shows that teachers having high level of emotional intelligence are better on self concept dimension of mental health than teachers with low level of emotional intelligence. The results are not surprising. According to literature of emotional intelligence emotionally intelligent persons have accurate self-assessment of themselves. They are aware of their strengths and weaknesses. They are self confident and present themselves with self assurance. Therefore the hypothesis that there will be no significant mean difference in self concept dimension of mental health of secondary school teachers belonging to high and low level of emotional intelligence group was rejected.

**Gender (B)**

A persual of table 4.5 reveals that the value of F for the variable gender is 7.38 which is significant at 0.05 level of significance for df 1 & 72. The data revealed that there exists a significant difference in self concept among secondary school teachers with respect to gender. Furthermore table 4.6 shows that mean values of self concept of male and female teachers are 13.62 and 15.17. Hence it can be said that female teachers are better at self concept dimension of mental health than male teachers. Thus the hypothesis that there will be no significant mean difference in self concept dimension of mental health of secondary school teachers was rejected.
Teaching experience (C)

An examination of table 4.5 reveals that the value of F for the variable teaching experience is 4.8 which is significant at 0.05 level of significance for df 1 & 72. It can thus be interpreted that level of teaching experience significantly impacts self concept dimension of secondary school teachers. Furthermore, table 4.6 shows that teachers with more experience are better on self concept dimension of mental health than teachers with less teaching experience as mean values have come to be 15.02 and 13.77 respectively. It is true that with experience people develop skills and competencies and confidence which add to self concept of a person.

Interactions

Emotional intelligence and gender (A x B)

An examination of table 4.5 reveals that the value of F for the interaction effect of variable emotional intelligence and gender is 12.3 which is significant at 0.01 level of significance for df 1 & 72. It can thus be said that there exists significant mean difference in the self concept of secondary school teachers due to interaction effect of emotional intelligence and gender. Thus the hypothesis that there will be no significant interaction effect of emotional intelligence and gender on self concept of secondary school teachers was rejected.

Emotional intelligence and Teaching experience (A x C)

A persual of table 4.5 revels that the value of F for the interaction effect of variable emotional intelligence and experience is 0.27 which is not significant. It can thus be said that emotional intelligence and experience when interacted together did not influence the self concept of secondary school teachers. Hence the hypothesis that there will be no significant interaction effect of emotional intelligence and experience on self concept dimension of mental health of secondary school teachers was accepted.

Gender and teaching experience (B x C)

Further table 4.5 discloses that the value of F for the interaction effect of variable gender and teaching experience is 1.5 which is not significant. It can thus be assumed that gender and teaching experience when interacted jointly did not influence the self concept of secondary school teachers. Hence the hypothesis that there will be
no significant interaction effect of gender and teaching experience on self concept dimension of mental health of secondary school teachers was accepted.

**Emotional intelligence, gender and teaching experience (A x B X C)**

A close examination of table 4.5 reveals that the value of F for the triple interaction effect of variables i.e. emotional intelligence, gender and teaching experience for self concept dimension of mental health is 1.75 which is not significant. It can hence be stated that there exists no significant difference in self concept scores of secondary school teachers due to triple interaction of emotional intelligence, gender and teaching experience. Therefore, the hypothesis that there will be no significant interaction effect of emotional intelligence, gender and experience on self concept dimension of mental health was accepted.
Fig 7 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on self concept dimension of mental health.
Fig 8 Showing mean comparison of male & female secondary school teachers on self concept dimension of mental health.
Fig 9 Showing mean comparison of secondary school teachers having different levels of teaching experience on self concept dimension of mental health.
Section- 2(b) Concept of life dimension of mental health

Table 4.7 Summary of Three-Way ANOVA (2x2x2 Factorial Design) in respect of concept of life in relation to emotional intelligence, gender and teaching experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>4882.8</td>
<td>1</td>
<td>4882.8</td>
<td>254.3</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>9.1</td>
<td>1</td>
<td>9.1</td>
<td>0.47</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>227.8</td>
<td>1</td>
<td>227.8</td>
<td>11.8</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>66.6</td>
<td>1</td>
<td>66.6</td>
<td>3.46</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>5.5</td>
<td>1</td>
<td>5.5</td>
<td>0.28</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>0.6</td>
<td>1</td>
<td>0.6</td>
<td>0.03</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>4.6</td>
<td>1</td>
<td>4.6</td>
<td>0.23</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>1387.5</td>
<td>72</td>
<td>19.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6584.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.

* Significant at 0.05 level of confidence.

Table 4.8 mean values of concept of life scores.

<table>
<thead>
<tr>
<th></th>
<th>A₁ High Emotionally Intelligent</th>
<th>A₂ Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B₁ Males</td>
<td>B₂ Females</td>
</tr>
<tr>
<td>C₁ Teaching Experience (1-13 Yrs)</td>
<td>28.7</td>
<td>31.5</td>
</tr>
<tr>
<td>C₂ Teaching Experience (16 Yrs – onwards)</td>
<td>32.9</td>
<td>35.1</td>
</tr>
</tbody>
</table>
High EI = 32.05  B1 Males = 23.9  C1 Teaching Exp. (1-13 Yrs) = 22.5

Main Effects

Emotional intelligence (A)

A perusal of table 4.7 indicates that the value of F for the variable emotional intelligence is 254.3 which is significant at 0.01 level of significance for df 1 & 72. So it can be said that there exists significant mean difference in concept of life dimension of mental health of secondary school teachers with high and low level of emotional intelligence. Moreover, table 4.8 divulges that mean value of concept of life with high and low emotional intelligence is 32.05 and 16.42 respectively. The results were expected as high emotionally intelligent persons believe in actions, know how to make life happy by establishing sound relationships and don’t feel life burdensome for them. Their perspective towards life is positive. Hence it can be said that the teachers with high emotional intelligence have better concept of life in comparison to the one with low emotional intelligence. Hence the hypothesis that there will be no significant differences in concept of life dimension of mental health of secondary school teachers belonging to high and low emotional intelligence groups was rejected.

Gender (B)

It is revealed from the table 4.7 that the value of F for the variable gender is 0.47 which is not significant. It indicates that there exists no significant gender difference in concept of life dimension of mental health of secondary school teachers. Furthermore, table 4.8 reveals that the mean values of concept of life dimension of mental health of male and the female teachers are 23.9 and 24.57 which are not largely different. Therefore, the hypothesis that there will be no significant gender differences in concept of life dimension of mental health of secondary school teachers was accepted.

Teaching Experience (C)

A perusal of table 4.7 reveals that the value of F for the variable teaching experience is 11.8 which is significant at 0.01 level of significance. It can thus be said
that there exists significant difference in concept of life dimension of mental health of secondary school teachers having different levels of teaching experience. Moreover, table 4.8 indicates that teachers with more experience have better concept of life in comparison to ones with less experience as their mean values of concept of life dimension of mental health are 25.92 and 22.5 respectively. Thus, the hypothesis that there will be no significant mean difference in concept of life dimension of mental health of teachers with different level of teaching experience was rejected.

Interactions

Emotional intelligence and Gender (A x B)

A careful examination of table 4.7 reveals that the value of F for the variable emotional intelligence and gender on concept of life dimension of mental health is 3.46 which is not significant. Thus it can be said that there exists no significant difference in the concept of life dimension of mental health of secondary school teachers due to the interaction effect of emotional intelligence and gender. The hypothesis that there will be no significant interaction between emotional intelligence and gender when concept of life dimension of mental health of secondary school teachers will be taken as dependent variable was accepted.

Emotional intelligence and Teaching Experience (A x C)

A close examination of table 4.7 discloses that the value of F for the interaction effect of variable emotional intelligence and teaching experience on concept of life dimension of mental health is 0.28 which is not significant. It gives evidence that there exists no significant mean difference in concept of life dimension of mental health of secondary school teachers due to interaction effect of emotional intelligence & teaching experience. The null hypothesis of no interaction effect of emotional intelligence and teaching experience on concept of life dimension of mental health was rejected.

Gender and Teaching Experience (B x C)

A perusal of table 4.7 reveals that the value of F for the interaction effect of variable gender and teaching experience is 0.03 which is not significant. It can
accordingly be stated that there exists no significant mean difference in concept of life dimension of mental health of secondary school teachers due to the interaction effect of gender and teaching experience. Thus, the hypothesis that there will be no significant interaction between gender and experience of teaching when concept of life dimension of mental health of secondary school teachers will be taken as dependent variable was accepted.

**Emotional intelligence, Gender and Teaching Experience (A x B x C)**

A perusal of table 4.7 discloses that the value of F for the interaction effect of variables emotional intelligence, gender and teaching experience is 0.23 which is not significant. It points out that there is no significant interaction effect of the variables i.e. emotional intelligence, gender and length of teaching experience on concept of life dimension of mental health of secondary school teachers. The null hypothesis formulated in this case was accepted.
Fig 10 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on concept of life dimension of mental health.
Fig 11 Showing mean comparison of male & female secondary school teachers on concept of life dimension of mental health.
Fig 12 Showing mean comparison of secondary school teachers having different levels of teaching experience on concept of life dimension of mental health.
Sub Section- 2(c) Perception of self amongst others dimension of mental health.

Table 4.9 Summary of Three Way ANOVA (2x2x2) Factorial Design for perception of self amongst others scores in relation to emotional intelligence, gender and teaching experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>8528.5</td>
<td>1</td>
<td>8528.5</td>
<td>277.8</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>115.2</td>
<td>1</td>
<td>115.2</td>
<td>3.75</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>88.22</td>
<td>1</td>
<td>88.2</td>
<td>2.87</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>115.1</td>
<td>1</td>
<td>115.1</td>
<td>3.74</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>138.7</td>
<td>1</td>
<td>138.7</td>
<td>4.51</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>110.4</td>
<td>1</td>
<td>110.4</td>
<td>3.58</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>87.3</td>
<td>1</td>
<td>87.3</td>
<td>2.84</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>2214.6</td>
<td>7</td>
<td>30.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1139.8</td>
<td></td>
<td>8.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.

Table 4.10 mean values of perception of self amongst others dimension of mental health.

<table>
<thead>
<tr>
<th></th>
<th>A₁ High Emotionally Intelligent</th>
<th>A₂ Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B₁ Males</td>
<td>B₁ Females</td>
</tr>
<tr>
<td>C₁ Teaching Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1-13 Yrs)</td>
<td>40.3</td>
<td>40.3</td>
</tr>
<tr>
<td>C₂ Teaching Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(16 Yrs – onwards)</td>
<td>39.9</td>
<td>49.5</td>
</tr>
</tbody>
</table>

A₁ High EI =42.5   B₁ Males = 21.85   C₁ Teaching Exp. (1-13 Yrs) =31.12
A₂ Low EI=21.85   B₁ Females =30.97   C₂ Teaching Exp. (16 Yrs – onwards) =33.22
Main Effects

Emotional intelligence (A)

A thorough study of table 4.9 reveals that the value of F for the variable emotional intelligence is 277.8 which is significant at 0.01 level of significance. Thus it shows that there exists significant mean difference in perception of self amongst others dimension of mental health of secondary school teachers with high and low level of emotional intelligence. Furthermore, table 4.10 discloses that mean value of perception of self amongst others with high and low emotional intelligence is 42.5 and 21.85 respectively. It can thus be said that the teachers with high emotional intelligence have better perception of self amongst others in comparison to those with low emotional intelligence. The hypothesis that there will be no significant mean differences in perception of self amongst others of secondary school teachers belonging to high and low emotional intelligence groups was rejected. The results are not surprising. Emotionally intelligent people have better image of themselves amongst others. They enjoy the reputation of being honest men, people rely on their counsel. They are given due recognition wherever they go. The positive perception of self amongst others give them confidence and improve their mental health.

Gender (B)

A perusal of table 4.9 reveals that the value of F for the variable gender is 3.75 which is not significant. It indicates that there exists no significant gender difference in perception of self amongst others dimension of mental health of secondary school teachers. Hence the hypothesis that there will be no significant gender difference in perception of self amongst others of secondary school teachers was accepted.

Teaching Experience (C)

A careful observation of table 4.9 shows that the value of F for the variable teaching experience is 2.87 which is not significant. It can accordingly be understood that there exists no significant mean difference in perception of self amongst others of teachers
having different level of teaching experience. Furthermore, table 4.10 indicates that the mean values of perception of self amongst others for the main effect of teaching experience are 31.1 and 33.2 respectively which are not largely different from each other. Hence, the hypothesis there will be no significant difference in perception of self amongst others of teachers with different levels of experience was accepted.

**Interactions**

**Emotional intelligence and Gender (A x B)**

A close examination of table 4.9 shows that the value of F for the variable emotional intelligence and gender on perception of self amongst others is 3.74 which is not significant. Thus it can be interpreted that there exists no significant mean difference in the perception of self amongst others dimension of mental health of secondary school teachers due to the interaction effect of emotional intelligence and gender. Hence, the hypothesis that there will be no significant interaction between emotional intelligence and gender when perception of self amongst others of secondary school teachers will be taken as dependent variable was accepted.

**Emotional intelligence and teaching experience (A x C)**

A close examination of table 4.9 shows that the value of F for the interaction effect of variable emotional intelligence and teaching experience on perception of self amongst others dimension of mental health is 4.51 which is significant at 0.05 level of significance. It points out that there exists significant difference in perception of self amongst others dimension of mental health of secondary school teachers due to the joint interaction of emotional intelligence & teaching experience. The null hypothesis of no interaction effect of emotional intelligence and teaching experience was rejected. Emotional intelligence and experience may be key factors in better perception of teachers amongst others.

**Gender and Teaching Experience (B x C)**

A close observation of table 4.9 reveals that the value of F for the interaction effect of variable gender and teaching experience is 3.58 which is not significant. It can thus be interpreted that there exists no significant difference in perception of self amongst others
dimension of mental health of secondary school teachers due to the interaction effect of
gender and teaching experience. Thus, the hypothesis that there will be no significant
interaction between gender and teaching experience when perception of self amongst others
dimension of mental health of secondary school teachers will be taken as dependent
variable was accepted.

**Emotional intelligence, Gender and Teaching Experience (A x B x C)**

A persual of table 4.9 reveals that the value of F for the interaction effect of
variables emotional intelligence, gender and teaching experience is 2.84 which is not
significant. It reveals that there is no significant interaction effect of the variables i.e.
emotional intelligence, gender and length of teaching experience on perception of self
amongst others dimension of mental health of secondary school teachers. The null
hypothesis formulated in this case was accepted.
Fig 13 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on perception of self amongst others dimension of mental health.
Fig 14 Showing mean comparison of male & female secondary school teachers on perception of self amongst others dimension of mental health.
Fig 15 Showing mean comparison of secondary school teachers having different levels of teaching experience on perception of self amongst others dimension of mental health.
Sub Section- 2(d) Perception of others dimension of mental health

Table 4.11 Summary of Three Way ANOVA (2x2x2) Factorial Design for perception of others scores in relation to emotional intelligence, gender and teaching experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>1344.8</td>
<td>1</td>
<td>1344.8</td>
<td>59.3</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>110.4</td>
<td>1</td>
<td>110.4</td>
<td>4.87</td>
<td>Significant. *</td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>168.2</td>
<td>1</td>
<td>168.2</td>
<td>7.42</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>151.2</td>
<td>1</td>
<td>151.2</td>
<td>6.67</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>33.6</td>
<td>1</td>
<td>33.6</td>
<td>1.48</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>14.5</td>
<td>1</td>
<td>14.5</td>
<td>0.64</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>130.3</td>
<td>1</td>
<td>130.3</td>
<td>5.75</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>1631.2</td>
<td>72</td>
<td>22.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3584.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.

Table 4.12 mean values of perception of others.

<table>
<thead>
<tr>
<th></th>
<th>A₁ High Emotionally Intelligent</th>
<th>A₂ Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B₁ Males</td>
<td>B₂ Females</td>
</tr>
<tr>
<td>C₁ Teaching Experience (1-13 Yrs)</td>
<td>25.8</td>
<td>27.5</td>
</tr>
<tr>
<td>C₂ Teaching Experience (16 Yrs – onwards)</td>
<td>26.6</td>
<td>35.1</td>
</tr>
</tbody>
</table>
A₁ High EI = 49.3  B₁ Males = 23.47  C₁ Teaching Exp. (1-13 Yrs) = 23.2
A₂ Low EI = 20.55  B₂ Females = 25.82  C₂ Teaching Exp. (16 Yrs – onwards) = 26.1

Main Effects

Emotional intelligence (A)

A careful observation of table 4.11 reveals that the value of F for the variable emotional intelligence is 59.3 which is significant at 0.01 level of significance for df 1 & 72. It can thus be stated that there exists significant mean difference in perception of others dimension of mental health of secondary school teachers with high and low level of emotional intelligence. Further, table 4.12 discloses that mean value of perception of others in high and low emotional intelligence group is 49.3 and 20.5. It can thus be assumed that the teachers with high emotional intelligence have better perception of others in comparison to those with low emotional intelligence. Thus the hypothesis that there will be no significant mean difference in perception of others dimension of mental health of secondary school teachers belonging to high and low emotional intelligence groups was rejected. These results were expected. High emotionally intelligent people understand the feelings of others. They have good interpersonal skills, ability to be aware of, understand & relate to others. They make friends & rely on them.

Gender (B)

A persual from the table 4.11 that the value of F for the variable gender is 4.87 which is significant at 0.05 level of significance for df 1 & 72. It points out that there exists significant gender differences in perception of others dimension of mental health of secondary school teachers. Moreover, table 4.12 reveals that the mean values of perception of others dimension of mental health of male and the female teachers are 23.4 and 25.8 respectively. It indicates that female teachers are better on perception of others dimension of mental health than male teachers. Hence the hypothesis that there will be no significant gender difference in perception of others dimension of mental health of secondary school teachers was rejected.

Teaching Experience (C)
A careful examination of table 4.11 reveals that the value of F for the variable teaching experience is 7.4 which is significant at 0.05 level of significance for df 1 & 72. It can thus be interpreted that there exists significant mean difference in perception of others dimension of mental health of teachers having different levels of teaching experience. Furthermore, table 4.12 indicates that the mean value of perception of others for teaching experience 1-13 years is 23.2 whereas for teaching experience 16 years onwards is 26.1. It indicates that teachers with more teaching experience (16 years onwards) are better on perception of others dimension of mental health than teachers having 1-13 years of teaching experience. Hence, the hypothesis that there will be no significant mean differences in perception of others dimension of mental health for the main effects of teaching experience was rejected. Experienced teachers are mature in their relation with others. They respect the feelings of others and are grateful to their friends. Experience helps in developing better interpersonal skills.

**Interactions**

**Emotional intelligence and Gender (A x B)**

An observation of table 4.11 reveals that the value of F for the variable emotional intelligence and gender on perception of others dimension of mental health is 6.67 which is significant at 0.05 level of significance for df 1 & 72. It can hence be said that there is significant mean difference in the perception of others dimension of mental health of secondary school teachers due to the interaction effect of emotional intelligence and gender. Hence, the hypothesis that there will be no significant interaction between emotional intelligence and gender when perception of others dimension of mental health of secondary school teachers will be taken as dependent variable was rejected.

**Emotional intelligence and Teaching Experience (A x C)**

A close examination of table 4.11 tells that the value of F for the interaction effect of variable emotional intelligence and teaching experience on perception of others dimension of mental health is 1.48 which is not significant. It reflects that there
exists no significant mean difference in perception of others dimension of mental health of secondary school teachers when emotional intelligence & teaching experience interact jointly. The null hypothesis of no interaction effect of emotional intelligence and teaching experience on perception of others dimension of mental health was accepted.

**Gender and Teaching Experience (B x C)**

A careful observation of table 4.11 reveals that the value of F for the interaction effect of variable gender and teaching experience is 0.64 which is not significant. It can hence be said that there exists no significant difference in perception of others dimension of mental health of secondary school teachers due to the interaction effect of gender and teaching experience. Hence, the hypothesis that there will be no significant interaction between gender and teaching experience when perception of others dimension of mental health of secondary school teachers will be taken as dependent variable was accepted.

**Emotional intelligence, Gender and Teaching Experience (A x B x C)**

A close examination of table 4.11 reveals that the value of F for the interaction effect of variables emotional intelligence, gender and teaching experience is 5.75 which is significant at 0.05 level of significance for df 1 & 72. This points out that there is significant interaction effect of the variables i.e. emotional intelligence, gender and length of teaching experience on perception of others dimension of mental health of secondary school teachers. The null hypothesis formulated in this case was not accepted.
Fig 16 showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on perception of others dimension of mental health.
Fig 17 showing mean comparison of male & female secondary school teachers on perception of others dimension of mental health.
Fig 18 showing mean comparison of secondary school teachers having different levels of teaching experience on perception of others dimension of mental health
Sub Section- 2(e) Personal adjustment dimension of mental health

Table 4.13 Summary of Three Way ANOVA (2x2x2) Factorial Design for personal adjustment scores in relation to emotional intelligence, gender and teaching experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>1531.2</td>
<td>1</td>
<td>1531.2</td>
<td>34.8</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>7.2</td>
<td>1</td>
<td>7.2</td>
<td>0.16</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>238</td>
<td>1</td>
<td>238</td>
<td>5.42</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>0.4</td>
<td>1</td>
<td>0.4</td>
<td>0.009</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>45</td>
<td>1</td>
<td>45</td>
<td>1.025</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>11.2</td>
<td>1</td>
<td>11.2</td>
<td>0.255</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>168.4</td>
<td>1</td>
<td>168.4</td>
<td>3.83</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>3163.8</td>
<td>72</td>
<td>43.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5165.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.

Table 4.14 mean values of personal adjustment scores.

<table>
<thead>
<tr>
<th></th>
<th>A₁ High Emotionally Intelligent</th>
<th>A₂ Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B₁ Males</td>
<td>B₂ Females</td>
</tr>
<tr>
<td>C₁ Teaching Experience (1-13 Yrs)</td>
<td>24.0</td>
<td>21.1</td>
</tr>
<tr>
<td>C₂ Teaching Experience (16 Yrs – onwards)</td>
<td>25.3</td>
<td>29.7</td>
</tr>
</tbody>
</table>

A₁ High EI =20.27    B₁ Males = 20.35    C₁ Teaching Exp. (1-13 Yrs) =18.92
A₂ Low EI =16.27    B₂ Females =20.95   C₂ Teaching Exp. (16 Yrs – onwards) =22.37

Main Effects

Emotional intelligence (A)
A close examination of table 4.13 tells that the value of F for the main effect of variable emotional intelligence is 34.8 which is significant at 0.01 level of significance for df 1 & 72. It can hence be interpreted that there exists significant mean differences in personal adjustment dimension of mental health of secondary school teachers with high and low level of emotional intelligence. Moreover, table 4.14 reveals that mean value of personal adjustment with high and low emotional intelligence is 20.2 and 16.2 respectively. It can be interpreted that teachers with high emotional intelligence have better personal adjustment as compared to teachers with low emotional intelligence. The results of the study are in agreement with the literature on emotional intelligence. It is true that emotionally intelligent teachers have developed in them core set of skills-problem solving decision making, self awareness, assertiveness, skills for coping with stress and meeting the demands and challenges of everyday life. Hence the hypothesis that there will be no significant differences in personal adjustment dimension of mental health of secondary school teachers belonging to high and low emotional intelligence groups was rejected.

**Gender (B)**

A perusal of table 4.13 reveals that the value of F for the main effect of variable gender is 0.16 which is not significant. It indicates that there exists no significant gender difference in personal adjustment dimension of mental health of secondary school teachers. Furthermore, table 4.14 reveals that the mean values of personal adjustment of male and the female teachers are 20.35 and 20.95 respectively which are approximately the same. Hence the hypothesis that there will be no significant gender difference in personal adjustment dimension of mental health of secondary school teachers was accepted.

**Teaching Experience (C)**

A perusal of table 4.13 discloses that the value of F for the variable teaching experience is 5.42 which is significant at 0.05 level of significance for df 1 & 72. Therefore it can be said that there exists significant difference in personal adjustment dimension of mental health of teachers having different levels of teaching experience. Furthermore, table 4.14 indicates that the mean value of teachers having teaching experience 16 years onwards was 22.37 whereas those of teachers having 1-13 years was 18.92. Thus it can be
interpreted that the teachers who have more teaching experience are better on personal adjustment. There is no denying the fact that experience is a great teacher. With experience one learns to make accurate self-assessment. He is reflective, learning from experience and making self development. Experienced teachers have ability to adapt to change and to solve problems of personal or social nature. Hence that hypothesis that there will be no significant mean difference in personal adjustment dimension of mental health of secondary school teachers was rejected.

**Interactions**

**Emotional intelligence and Gender (A x B)**

An observation of table 4.13 shows that the value of F for the variable emotional intelligence and gender on personal adjustment dimension of mental health is 0.009 which is not significant. It can be thus said that there exists no significant differences in the personal adjustment of secondary school teachers due to the interaction effect of emotional intelligence and gender. Thus, the hypothesis that there will be no significant interaction effect of emotional intelligence and gender when personal adjustment of secondary school teachers will be taken as dependent variable was accepted.

**Emotional intelligence and teaching experience (A x C)**

An examination of table 4.13 reveals that the value of F for the interaction effect of variable emotional intelligence and experience on personal adjustment dimension of mental health is 1.025 which is not significant. It points out that there exist no significant difference in personal adjustment dimension of mental health of secondary school teachers with joint effect of emotional intelligence and teaching experience. The null hypothesis of no interaction effect of emotional intelligence and experience was accepted.

**Gender and Teaching Experience (B x C)**

A close observation of table 4.13 reveals that the value of F for the interaction effect of variables gender and teaching experience is 0.225 which is not significant. It can thus be interpreted that there exists no significant differences in personal adjustment dimension of mental health of secondary school teachers due to the interaction effect of
gender and teaching experience. Therefore, the hypothesis that there will be no significant interaction effect of gender and teaching experience when personal adjustment dimension of mental health of secondary school teachers will be taken as dependent variable was accepted.

**Emotional intelligence, Gender and Teaching Experience (A x B x C)**

A persual of table 4.13 shows that the value of F for the interaction effect of variables emotional intelligence, gender and teaching experience is 3.83 which is not significant. It indicates that there is no significant interaction effect of the variables i.e. emotional intelligence, gender and length of teaching experience on personal adjustment dimension of mental health of secondary school teachers. The null hypothesis formulated in this case was accepted.
Fig 19 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on personal adjustment dimension of mental health.
Fig 20 Showing mean comparison of male & female secondary school teachers on personal adjustment dimension of mental health.
Fig 21 Showing mean comparison of secondary school teachers having different levels of teaching experience on personal adjustment dimension of mental health
Sub Section- 2(f) Record of achievement dimension of mental health

Table 4.15 Summary of Three Way ANOVA (2x2x2) Factorial Design for record of achievement dimension of mental health in relation to emotional intelligence, gender and teaching experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>3213.1</td>
<td>1</td>
<td>3213.1</td>
<td>110.8</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>227.8</td>
<td>1</td>
<td>227.8</td>
<td>7.88</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Teaching Experience (C)</td>
<td>122.5</td>
<td>1</td>
<td>122.5</td>
<td>4.22</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>122</td>
<td>1</td>
<td>122</td>
<td>4.20</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>0.5</td>
<td>1</td>
<td>0.5</td>
<td>0.017</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>17</td>
<td>1</td>
<td>17</td>
<td>0.58</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>520.9</td>
<td>1</td>
<td>520.9</td>
<td>17.97</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>2087.1</td>
<td>72</td>
<td>28.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6310.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.

Table 4.16 mean values of record of achievement scores.

<table>
<thead>
<tr>
<th></th>
<th>A₁ High Intelligent</th>
<th>Emotionally</th>
<th>A₂ Low Intelligent</th>
<th>Emotionally</th>
</tr>
</thead>
<tbody>
<tr>
<td>B₁ Males</td>
<td>B₂ Female</td>
<td></td>
<td>B₁ Males</td>
<td>B₂ Females</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Main Effects

Emotional intelligence (A)

A perusal of table 4.15 reveals that the value of F for the main effect of variable emotional intelligence is 110.8 which is significant at 0.01 level of significance for df 1 & 72. It can thus be interpreted that there exists significance difference in record of achievement dimension of mental health of secondary school teachers with high and low level of emotional intelligence. Further, table 4.16 shows that mean value of record of achievement with high and low emotional intelligence is 29.03 and 16.7 respectively. It reflects that high emotionally intelligent teachers have better record of achievement than low emotionally intelligent teachers. It means high emotionally intelligent teachers believe in hard work for success in life. They have more achievements. They are not fatalist and are satisfied with their achievements. They never repent over the failures and have faith in god. Hence the hypothesis that there will be no significant difference in record of achievement dimension of mental health of secondary school teachers belonging to high and low emotional intelligence group was rejected.

Gender (B)

A perusal of the table 4.15 reveals that the value of F for the main effect of variable gender is 7.8 which is significant at 0.05 level of significance for df 1 & 72. It indicates that there exists significant gender difference in record of achievement dimension of mental health of secondary school teachers. Moreover, table 4.16 indicates that the mean values of record of achievement dimension of mental health of male and female teachers are 21.3 and 24.7. it means female teachers have better record of achievement than male teachers. Thus the hypothesis that there will be no significant gender difference in record of achievement dimension of mental health of secondary school teachers was rejected. Women by nature are hardworking, they don’t believe in luck for
success in life. They are satisfied with whatever they achieve in life and are not disheartened by failures.

**Teaching Experience (C)**

A persual of table 4.15 reveals that the value of F for the main effect of variable teaching experience is 4.22 which is significant at 0.05 level of significance for df 1 & 72. It can thus be said that there exists significant difference in record of achievement of teachers having different levels of teaching experience. Moreover, table 4.16 indicates that the mean values of record of achievement for teachers having teaching experience 16 years onwards are 24.2 and for teachers having teaching experience 1-13 years are 21.8. it indicates that teachers having teaching experience 16 years onwards have better record of achievement. The hypothesis that there will be no significant differences in record of achievement dimension of mental health of teachers with different level of teaching experience was rejected. There is no denying the fact that with age one becomes more experienced and learns with age. Senior teachers have more achievements in their bags than junior ones.

**Interactions**

**Emotional intelligence and Gender (A x B)**

An examination of table 4.15 indicates that the value of F for the interaction effect of variables emotional intelligence and gender on record of achievement is 4.2 which is significant even at 0.05 level of significance with 1 and 72. It can be said that there exists significant difference in the record of achievement dimension of mental health of secondary school teachers due to the interaction effect of emotional intelligence and gender. Hence, the hypothesis that there will be no significant interaction between emotional intelligence and gender when record of achievement of secondary school teachers will be taken as dependent variable was rejected.

**Emotional intelligence and Teaching Experience (A x C)**
Observation of table 4.15 discloses that the value of F for the interaction effect of variable emotional intelligence and experience on record of achievement dimension of mental health is 0.017 which is not significant. It reflects that there exists no significant difference in record of achievement dimension of mental health of secondary school teachers, when emotional intelligence and teaching experience interact jointly. The null hypothesis of no interaction effect of emotional intelligence and teaching experience was accepted.
Gender and Teaching Experience (B x C)

A careful examination of table 4.15 reveals that the value of F for the interaction effect of variable gender and teaching experience is 0.58 which is not significant. It can thus be interpreted that there exists no significant difference in record of achievement dimension of mental health of secondary school teachers due to the interaction effect of gender and teaching experience. Therefore, the hypothesis that there will be no significant interaction between gender and teaching experience when record of achievement dimension of mental health of secondary school teachers will be taken as dependent variable was accepted.

Emotional intelligence, Gender and Teaching Experience (A x B x C)

A persual of table 4.15 indicates that the value of F for the interaction effect of variables emotional intelligence, gender and teaching experience is 17.9 which is significant at 0.01 level of significance for df 1 & 72. It indicates that there is significant interaction effect of the variables i.e. emotional intelligence, gender and length of teaching experience on record of achievement dimension of mental health of secondary school teachers. The null hypothesis formulated in this case was rejected. High emotionally intelligent people believe in innovativeness. They seek out fresh ideas from wide variety of resources, generate new ideas, are result oriented, find ways to do better and learn how to improve their performance. Women by nature are hard-working. With experience they add more achievement in their profile. With age they develop more competencies in them. A teacher who has better knowledge of his emotions, also has better knowledge of emotions of his / her students & colleagues which helps to create situations for better achievement.
Fig 22 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on record of achievement dimension of mental health.
Fig 23 Showing mean comparison of male & female secondary school teachers on record of achievement dimension of mental health.
Fig 24 Showing mean comparison of secondary school teachers having different levels of teaching experience on record of achievement dimension of mental health
Section – 3

Objective: To study the significance of mean difference in the job stress scores of secondary school teachers for the main and interactional effects of emotional intelligence, gender and teaching experience.

Hypothesis: There will be no significant difference in the mean job stress scores of secondary school teachers for the main & interactional effects of emotional intelligence, gender & teaching experience.

Table 4.17 Summary of Three-Way ANOVA (2x2x2 Factorial Design) in respect of job stress in relation to emotional intelligence, gender and teaching experience.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence (A)</td>
<td>34155.1</td>
<td>1</td>
<td>34155.1</td>
<td>207.76</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>1683.6</td>
<td>1</td>
<td>1683.6</td>
<td>10.84</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Experience (C)</td>
<td>1757.8</td>
<td>1</td>
<td>1757.8</td>
<td>10.16</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Emotional intelligence x Gender (A x B)</td>
<td>7546.6</td>
<td>1</td>
<td>7546.6</td>
<td>44.99</td>
<td>Significant.**</td>
</tr>
<tr>
<td>Emotional intelligence x Teaching Experience (A x C)</td>
<td>1102.5</td>
<td>1</td>
<td>1102.5</td>
<td>6.99</td>
<td>Significant.*</td>
</tr>
<tr>
<td>Gender x Teaching Experience (B x C)</td>
<td>27.65</td>
<td>1</td>
<td>27.65</td>
<td>0.12</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Emotional intelligence x Gender x Teaching Experience (A x B x C)</td>
<td>86.3</td>
<td>1</td>
<td>86.3</td>
<td>0.74</td>
<td>Not significant.</td>
</tr>
<tr>
<td>Within Treatments</td>
<td>11741</td>
<td>72</td>
<td>163.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>58100.55</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at 0.01 level of confidence.
* Significant at 0.05 level of confidence.
Table 4.18 mean values of job stress scores.

<table>
<thead>
<tr>
<th></th>
<th>A₁ High Emotionally Intelligent</th>
<th>A₂ Low Emotionally Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B₁ Males</td>
<td>B₂ Females</td>
</tr>
<tr>
<td>C₁ Teaching Experience (1-13 Yrs)</td>
<td>149.8</td>
<td>119.8</td>
</tr>
<tr>
<td>C₂ Teaching Experience (16 Yrs – onwards)</td>
<td>131.7</td>
<td>104.6</td>
</tr>
</tbody>
</table>

A₁ High EI = 126.47  B₁ Males = 151.75  C₁ Teaching Exp. (1-13 Yrs) = 151.6
A₂ Low EI = 167.62  B₂ Females = 142.35  C₂ Teaching Exp. (16 Yrs – onwards) = 142.5

**Main Effects**

**Emotional intelligence (A)**

A close observation of table 4.17 indicates that the value of F for the main effect of emotional intelligence on job stress of secondary school teachers is 207.76 which is significant at 0.01 level of significance. It can thus be said that there exists significant difference in job stress among secondary school teachers with high and low level of emotional intelligence. Moreover, table 4.18 shows that mean value of job stress with high and low emotional intelligence is 126.47 and 167.62. It can hence be believed that the teachers with high emotional intelligence are less stressed with job in comparison to those with low emotional intelligence. Thus the hypothesis that there will be significant difference in job stress of secondary school teachers belonging to high and low emotional intelligence group was accepted.

In the present investigation the teachers with high emotional intelligence are found to have less job related stress. This result is not unexpected. By the nature of the construct of emotional intelligence, it is expected that the understanding of one’s and other people’s emotions, and one’s ability to regulate and manage them will have a lessening effect on work related stress. The findings of the present study authenticate the claim of Ciarrochi et al (2001) that an objective measure of emotion management skills is linked with an inclination to maintain an experimentally encouraged positive temper which has clear implications for averting stress. The finding of Ciarrochi, Chan & Caputi (2001), Nikolaou
(2002); Sutton & Whitley (2003); Mendes (2003); Bar-On (2003); Oginska (2005); Suresh & Josith (2008); & Naidoo et al. (2008) lend additional support to the present findings. In a work place like education industry where success is depended upon team work, cooperation and good interpersonal relationships, the importance of emotional intelligence, which indicates one’s ability to communicate with others in an efficient manner cannot be over emphasized. People having the skill of managing other’s emotions help people direct their feelings in a positive direction and try to maintain close association with them (Schutte et al. 1998). Such conduct should lead to closer fellow feeling and better social support which could be of psychologically beneficial in terms of stress and crises in the place of work.

**Gender (B)**

It may be observed from the table 4.17 that the value of F for the main effect of variable gender on job stress of secondary school teachers is 10.84 which is significant at 0.01 level of significance for df 1 and 72. It indicates that there exists significant gender difference in job stress of secondary school teachers. Furthermore, table 4.18 indicates that the mean values of job stress of male and the female teachers are 151.75 and 142.35. It can thus be interpreted that male teachers are less stressed in comparison to their counterparts. Hence the hypothesis that there will be no significant gender differences in job stress of secondary school teachers was rejected. The results are expected because of psychological factor. Men by nature are carefree whereas females are more sensitive. They are more particular and meticulous. They have to manage the home life and professional life. By their psychological makeup they are prone to more anxiety and hence stressed.

The findings are in tune with the results of study conducted by Singh (2005) but not in agreement with the findings of Maslach et al. (1996) and Antonion & Ploychroni (2006).

**Teaching Experience (C)**

A perusal of table 4.17 indicates that the value of F for the main effect of variable teaching experience on job stress of secondary school teachers is 10.16 which is significant at 0.01 level of significance. It can thus be interpreted that there exists significant mean
difference in job stress of teachers having different levels of teaching experience. Furthermore, table 4.18 reveals that teachers with more experience are less stressed in comparison to those with less experience, their mean values of job stress are 142.5 and 151.6 respectively. Hence, the hypothesis that there will be no significant difference in job stress among teachers with different levels of teaching experience was rejected.

The result of the study also indicates that teachers having more experience were having less job stress in comparison to those having less teaching experience. The findings of the present study validate the statement of Mendes (2003) who found that teachers with more experience were better at identifying emotions. The results are not surprising. There is no denying the fact that experience develops confidence in one’s ability to learn & master new skills & tasks. It develops work-life skills, such as communicating well or working in teams. Maturity comes from years which helps one to keep control on the nerves in stressful situations.

Interactions

Emotional intelligence and Gender (A x B)

An observation of table 4.17 reveals that the value of F for the interaction effect of variable emotional intelligence and gender on job stress of secondary school teachers is 44.99 which is significant at 0.01 level of significance for df 1 and 72. Hence it can be said that there exists significant difference in the job stress of secondary school teachers due to the interaction effect of emotional intelligence and gender. Hence, the hypothesis that there will be no significant interaction between emotional intelligence and gender when stress among secondary school teachers will be taken as dependent variable was rejected. There was a significant interaction between emotional intelligence and gender when the scores of job stress of teachers was an independent variable. The results of the study are in tune with the study of Maslach et al. (1996) who in the study of burnout among human service professionals including teachers reported that female staff had higher emotional exhaustion than male colleagues.

Emotional intelligence and Teaching Experience (A x C)
A close examination of table 4.17 reveals that the value of F for the interaction effect of variable emotional intelligence and experience on job stress of secondary school teachers is 6.99 which is significant at 0.05 level of significance which indicates that there exists significant differences in job related stress of secondary school teachers due to interaction effect of emotional intelligence and teaching experience. The null hypothesis of no interaction effect of emotional intelligence and experience on job related stress of secondary school teachers was rejected.

In Working with Emotional Intelligence, Daniel Goleman (1998) writes: “Our level of emotional intelligence is not determined by genes, nor does it develop only in early childhood. Unlike IQ, which changes little after our teen years, emotional intelligence seems to be largely learned, and it continues to develop as we go through life and learn from our experiences—our competence in it can keep growing. In fact, studies that have tracked people’s level of emotional intelligence through the years show that people get better and better in emotional intelligence skills as they grow more proficient at handling their emotions and impulses, at motivating themselves and at refining their skill of awareness of the feeling of other people and resourcefulness in handling social situations. There is an old fashion word for this growth in emotional intelligence: maturity (1998, p. 7)”. In agreement with Goleman’s statement about the relationship between emotional intelligence and experience, there is research that suggests that there is a positive relationship between emotional intelligence, age and work experience. Mayer, Caruso, and Salovey (1999) asserted that in order for emotional intelligence to be considered a standard intelligence, it should increase with age and experience.

**Gender and Teaching Experience (B x C)**

A perusal of table 4.17 indicates that the value of F for the interaction effect of variable gender and teaching experience on job stress of secondary school teachers is 0.12 which is not significant. It can hence be interpreted that there exists no significant difference in job stress of secondary school teachers due to the interaction effect of gender and teaching experience. Therefore, the hypothesis that there will be no significant
interaction between gender and teaching experience when stress among secondary school teachers will be taken as dependent variable was accepted.

**Emotional intelligence, Gender and Teaching Experience (A x B x C)**

A persual of table 4.17 reveals that the value of F for the interaction effect of variables like emotional intelligence, gender and teaching experience on job stress of secondary school teachers is 0.74 which is not significant. It indicates that there is no significant interaction effect of the variables i.e. emotional intelligence, gender and length of teaching experience on job related stress of secondary school teachers. The null hypothesis formulated in this case was accepted.
Fig 25 Showing mean comparison of high emotionally intelligent and low emotionally intelligent secondary school teachers on job stress.
Fig 26 Showing mean comparison of male & female secondary school teachers on job stress.
Fig 27 Showing mean comparison of secondary school teachers having different levels of teaching experience on job stress.
4.4 REFERENCES:


