CHAPTER –IV
ANALYSIS AND INTERPRETATION OF DATA

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Introduction

A research is stated to be an endeavour to discover, develop and verify knowledge and a researcher is expected to arrive at new findings only through accurate analysis and flawless interpretation of the data gathered. Therefore, analysis and interpretation of data should be carried out effectively using appropriate methods in order to get genuine results. Methods of analysis applied in the present study to test the hypotheses framed and their interpretations are discussed in this chapter.

The data gathered for the present study are subject to the following analyses:

(i) Regression Analysis
(ii) Correlation Analysis
(iii) Differential analysis
4.1 Regression Analysis

Drawing a relationship between the emotional competence and the teaching competence being the main objective of the present study, the data gathered is subject to regression analysis. Since the main purpose of applying regression analysis is to estimate the effect of the independent variable, emotional competence, on the dependent variable, teaching competence.

Table 4.1 Showing sum of square, mean square and F value of Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>Sum</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>35138.11</td>
<td>35138.11</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>248</td>
<td>27880.13</td>
<td>112.4199</td>
<td>312.561</td>
</tr>
<tr>
<td>Total</td>
<td>249</td>
<td>63018.24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F value is 312. It reveals that the emotional competence has an effect of 32 per cent on teaching competence. The dependent variable, teaching competence is influenced by emotional competence. The independent variable has an effect of 32 per cent on dependent variable.
4.2 Correlation Analysis

Since the present study attempts to correlate emotional competence with teaching competence, correlation analysis is carried out in order to find the degree of their relationship which is measured and represented by the coefficient of correlation. Pearson's product moment coefficient is the most often used and the most precise coefficient of correlation and hence it is applied to estimate the degree of relationship between emotional competence and teaching competence.

\( H_{01} : \) There is no significant effect of emotional competence on teaching competence of the female teacher trainees.

Table 4.2 Showing the Correlation Analysis

<table>
<thead>
<tr>
<th>Mean of Emotional Competence Scores</th>
<th>Mean of Teaching Competence Scores</th>
<th>Coefficient of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>103.468</td>
<td>111.06</td>
<td>0.7467</td>
</tr>
</tbody>
</table>

The correlation value 0.7467 indicates high positive correlation between the teaching competence and emotional competences. As emotional competence level increases the teaching competence level also increases. Furthermore, the correlation value proves that emotional competence is one of the major influencing variables of teaching competence. The study conducted by Ruma Roy (2007) on the relationship between emotional intelligence and teacher competence matches with this study.

Hence, the null hypothesis, \( H_{01} \) —"There is no relationship between emotional competence and teaching competence of the women teacher trainees" is rejected.
4.3(A) Differential Analysis of Emotional Competence

H_{02}: Adolescence and adult teacher trainees do not differ significantly in their emotional competence.

Table 4.3 showing mean, S.D, S.E_m and ‘t’ value of Emotional Competence scores of the groups on the basis of age category.

<table>
<thead>
<tr>
<th>Age Category</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Adolescence, 18-20 Yrs</td>
<td>119</td>
<td>99.116</td>
<td>14.580</td>
<td>1.786</td>
<td>2.085*</td>
</tr>
<tr>
<td>Early Adulthood, 21-25 Yrs</td>
<td>131</td>
<td>103.239</td>
<td>16.685</td>
<td>2.125</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.5 level

From the above table, the calculated ‘t’ value 2.085 is found to be more than the table value 1.645 at 5% level of significance. It indicates that the difference between the mean values of the two groups is significant.

The attributes to this independent variable, age category are late adolescence, which is specified as 18 to 20 years, and early adulthood which is 21-25 years. Since the minimum educational qualification for the teacher training course at elementary level Diploma in Teacher Education (D.T.Ed) is higher secondary course, the expected age group is around 17 to 19 years. However, it is observed that most of the candidates join D.T.Ed. two or three years after completing school education due to
various reasons. One of the reasons may be failure in higher secondary course and in such cases they need a year or two to complete it successfully. Another reason may be that parents, being unaware of the importance of women education, are not willing to educate their girl children beyond school level. In such cases, girls who are at the stage of crossing late adolescence and stepping into early adulthood are left with two options for their future; either to get married and be a home maker or to go for higher studies. Naturally, it takes time for these girls to grow mentally and emotionally in choosing this career-oriented course. Hence, the number of candidates-131 belonging to early adulthood being on the higher side than that of the other group-119 is justified. It should be mentioned that the women in the age group of 25 to 35 also take up this course since the maximum age limit is 35 years for normal candidates and it goes up to 40 years for some special cases. However, this age group is not considered for the present study since the emotional maturity of an 18 year old that has not yet come out of adolescence cannot be compared with that of a 30 or 35 year old matured women. Hence, the emotional competence of the women teacher trainees of the age group of 18 to 20 years is compared with that of the age group of 21-25 years.

Statistical analysis shows that the emotional competence of the second group is found to be greater than that of the first group. At this juncture, Erickson's stages of psycho-social development may be referred to. The developmental stages specified by Erickson states that during adolescence an individual faces emotional conflict between self identity and role confusion as she tries to integrate many roles of child, sibling, student, etc., in to a self image under role model and peer-pressure. On the contrary, a young adult learns to make personal commitment which helps them
develop team capabilities, collaboration and co-operation - some of the aspects that constitute the framework of emotional competence.

The result of this analysis substantiates the above theory and it is concluded that early adult women teacher trainees have higher emotional competence than their late adolescent counterparts.

Hence the Null Hypothesis Ho: is rejected.

The graphical representation is given in figure 4.1
FIGURE 4.1 SHOWING EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR AGE GROUP
Ho$_3$: There is no significant difference in the emotional competence of the women teacher trainees based on their subject group in higher secondary course.

Table 4.4(a) showing mean, S.D, S.E$_m$ and 't'value of Emotional Competence scores of the groups on the basis of their subject group in higher secondary course.

<table>
<thead>
<tr>
<th>Subject group</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E$_m$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>112</td>
<td>103.8304</td>
<td>17.378</td>
<td>1.642</td>
</tr>
<tr>
<td>Arts</td>
<td>82</td>
<td>103.439</td>
<td>15.197</td>
<td>1.678</td>
</tr>
<tr>
<td>Vocational</td>
<td>56</td>
<td>99.118</td>
<td>13.980</td>
<td>1.868</td>
</tr>
</tbody>
</table>

*Significant at 0.5 level

The above table indicates that the mean emotional competence value of science group students is higher than the values of arts group and vocational group students.

At higher secondary level, students have to choose their subject group which mostly depends on the percentage of total marks scored in 10$^{th}$ standard. It enables them in specializing in some subjects that may help further while opting for professional courses. Science group students have a wide scope of professional courses such as medicine, engineering, etc., to choose from. While arts group students
have an equally wide scope in the areas such as linguistics, humanities, history, accounts, banking etc., and vocational group students comparatively have limited scope for higher studies. D.T.Ed is the only professional course that can be taken up by students from all the three subject groups. In spite of having varied options, it is found that most number of science students prefers teaching profession that needs specific practical skills.

The present study finds, among the sample population, that the ratio of the science, arts and vocational group students to be in the ratio of 4:3:2 respectively. Since subject group depends mostly on the academic excellence, the investigator intends to study its impact on the emotional competence of the women teacher trainees.

It is found from the above table that the mean of emotional competence scores of science group students is similar to that of arts group students. However, the mean emotional competence score of vocational group students is found to be lower than that of the other two groups.

ANOVA test is applied to find out whether there is any significant difference among the variables and the results are presented in table 4.4 (b)

Table 4.4(b) ANOVA – Emotional Competence- Subject Group

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>‘F’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>905.701</td>
<td>452.851</td>
<td>1.797</td>
</tr>
<tr>
<td>Within Groups</td>
<td>247</td>
<td>62260.638</td>
<td>252.0674</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.5 level
From the above table, it is observed that the calculated F value 1.797 is less than the Table value 3.00 at 5% level of significance. Therefore, the difference in the emotional competence scores of the student teachers with respect to their subject group in higher secondary is not significant.

**Hence the Null Hypothesis Ho3 is accepted.**

The graphical representation is given in figure 4.2
FIGURE 4.2 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR SUBJECT GROUP

![Bar chart showing mean and SD of emotional competence for female teacher trainees by subject group (Science, Arts, Vocational) with higher mean values for Science and Vocational compared to Arts.](attachment:image)
H04: There is no significant difference between the emotional Competence of married women teacher trainees and that of unmarried women teacher trainees.

Table 4.5 showing Mean, S.D, S.Em and ‘t’ value of Emotional Competence scores of the groups on the basis of marital status.

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.Em</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>90</td>
<td>104.4</td>
<td>17.451</td>
<td>1.839</td>
<td>3.91*</td>
</tr>
<tr>
<td>Unmarried</td>
<td>160</td>
<td>95.938</td>
<td>14.419</td>
<td>1.14</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

It is found, from the above table, that the calculated ‘t’ value 3.91 is more than the table value 1.645 at 5% level of significance which indicates that there is a significant difference in the emotional competence of the women teacher trainees with respect to their marital status.

It is observed by the investigator, through years of her experience as a teacher educator that most of the candidates joining D.T.Ed course are from rural areas. Parents from this area prefer, for their girl children, marriage to a well settled man to be a better future plan, rather than higher professional studies that may enhance their empowerment. So, the parents are in haste with the marriage plan for their daughters when they hardly reach the age of 18 years. However, it is also observed that some parents do realize the importance of economic independence of women and are
willing to help their married daughters financially to take up a career-oriented course like D.T.Ed. In some cases, the spouse of the girl, being aware of the need for two-member-earning to run a family in this financially critical period, encourages his wife to do this course. No wonder, married students constitute 30 to 40 per cent of the admission in most of the institutions. It is found, in the present study, 36 per cent of the total sample population is married.

While comparing the emotional competence of these two groups, married women teacher trainees seem to possess higher emotional competence than their unmarried counter parts. This higher emotional competence of the married trainees may be explained in terms of the commitments and responsibilities they have owing to their marital status. They have to cope up with physical, mental and emotional stress and are able to regulate their emotions. This theoretical notion is proved by the result of this analysis.

**Hence the Null Hypothesis $H_0_4$ is rejected.**

The graphical representation is given in figure 4.3
FIGURE 4.3 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR MARTIAL STATUS
Hos: There is no significant difference between the emotional competence of vegetarian women teacher trainees and that of non-vegetarian women teacher trainees.

Table 4.6 showing Mean, S.D, S.E_m and ‘t’ value of emotional competence scores of the groups on the basis of their food habits.

<table>
<thead>
<tr>
<th>Food Habits</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetarian</td>
<td>150</td>
<td>106.93</td>
<td>15.54</td>
<td>1.269</td>
<td>4.395*</td>
</tr>
<tr>
<td>Non-Vegetarian</td>
<td>100</td>
<td>98.27</td>
<td>15.08</td>
<td>1.509</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

The above table reveals that the calculated ‘t’ value 4.395 is more than the table value 1.645 at 5% level of significance. This points out that there is significant difference in emotional competence of women teacher trainees based on their food habits.

It is believed that spices have the capacity to alter the temper of a human being. Since most of the non-vegetarian preparation being spicier than vegetarian food, those who take more non-vegetarian food are supposed to be temperamental. Considering this observation, the intake of vegetarian and non-vegetarian food items is chosen as a variable for the present study.

The above analysis reveals that women teacher trainees who take vegetarian food have higher emotional competence score than those who take non-vegetarian food. The reason for the lower emotional competence in the case may be due to the alteration of
mental disposition supposed to have caused by higher intake of spices by the non-vegetarian women teacher trainees. Since the difference in the emotional competence of vegetarian and non-vegetarian women teacher trainees is found to be significant, it may be concluded that food habits have an impact on the emotional competence.

**Hence the Null Hypothesis H05 is rejected.**

The graphical representation is given in figure 4.4
FIGURE 4.4 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR FOOD HABITS

- VEGETARIAN
- NON-VEGETARIAN
**Ho**: There is no significant difference between the emotional competence of women teacher trainees with hobbies and those without hobbies.

Table 4.7 showing Mean, S.D, S.E_m and ‘t’ value of emotional competence scores of the groups on the basis of their hobbies.

<table>
<thead>
<tr>
<th>Hobbies</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>With hobbies</td>
<td>160</td>
<td>104.88</td>
<td>15.682</td>
<td>1.24</td>
<td>2.085*</td>
</tr>
<tr>
<td>Without hobbies</td>
<td>90</td>
<td>99.477</td>
<td>15.901</td>
<td>1.676</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

The above table shows that the calculated ‘t’ value 2.085 is more than the table value 1.645 at 5% level of significance. It makes it clear that the difference between the emotional competence of women teacher trainees who have specific hobbies and that of those who have no specific hobbies is significant.

Spending one’s leisure time in pursuing a specific hobby is presumed to be helpful in relaxation of one’s mind. Hence, the sample population is classified as those with hobbies and those without hobbies in order to find the impact of engaging oneself in hobbies on emotional competence.

The finding of the above analysis suggests that the emotional competences of the teacher trainees, who are occupied in some specific hobbies like collecting stamps or coins, watching birds, photography, etc., are found to be on the higher side than the other group without any specific hobbies.

**Hence the Null Hypothesis Ho is rejected.**

The graphical representation is given in figure 4.5
FIGURE 4.5 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR HOBBIES
Ho7: There is no significant difference in the emotional competence of women teacher trainees based on their extra physical activity.

Table 4.8 showing Mean, S.D, S.Em and ‘t’ value of emotional competence scores of the groups on the basis of their extra physical activity.

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.Em</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>With extra physical activity</td>
<td>80</td>
<td>104.4</td>
<td>17.4</td>
<td>1.95</td>
<td>1.968</td>
</tr>
<tr>
<td>Without extra physical activity</td>
<td>170</td>
<td>99.943</td>
<td>15.0</td>
<td>1.151</td>
<td>*</td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

From the above table, it is clear that the calculated ‘t’ value 1.968 is more than the table value 1.645 at 5% level of significance.

It points out that there is significant difference in the emotional competence of the women teacher trainees based on their extra physical activity. Though grown up women are not expected to spend their time in playing out door games, they should have some extra physical activity such as yoga, aerobics, dancing etc., in order to keep them both physically and mentally sound. One of the major findings of the study on ‘the effects of yoga on functional role, stress, motivation, job involvement and emotional intelligence’ by Narasimhan, U 2004 suggests that yoga training has indeed, enhanced emotional intelligence of executives of both the genders. Therefore, the effect of physical activity, other than domestic chores, on the emotional competence of women teacher trainees is studied.

The finding of the present study substantiates the previous study by making it clear that spending time in extra physical activity has a favorable impact on the emotional competence of the women teacher trainees.

Hence the Null Hypothesis Ho7 is rejected.

The graphical representation is given in figure 4.6
FIGURE 4.6 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR EXTRA PHYSICAL ACTIVITY
Ho_8: There is no significant difference in the emotional competence of women teacher trainees based on their general health condition.

Table 4.9 showing Mean, S.D, S.E_m and 't' value of emotional competence scores of the groups on the basis of their general health condition.

<table>
<thead>
<tr>
<th>General Health Condition</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
<th>'t'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>207</td>
<td>102.019</td>
<td>16.089</td>
<td>1.118</td>
<td>3.657*</td>
</tr>
<tr>
<td>With Mild chronic illness</td>
<td>43</td>
<td>110.442</td>
<td>13.061</td>
<td>1.99</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

The above table shows that the calculated 't' value 3.657 is more than the table value 1.645 at 5% level of significance.

It is common that some people suffer from mild diseases like migraine, cold, cough, sneezing etc., frequently. Emotional stress felt by such people is found to disturb their emotional regulation. For the present study, therefore, emotional competence of normally healthy women teacher trainees and that of women teacher trainees who suffer from mild chronic illnesses are compared.

The result of the analysis shows that women teacher trainees with normal health condition appear to be more competent emotionally than the others who have slight health problems.
The reason may be that the disturbance in physical health caused by mild illness seems to have affected emotional health of an individual. This is substantiated by the significant difference in emotional competence of these categories of women teacher trainees.

**Hence the Null Hypothesis $H_0$ is rejected.**

The graphical representation is given in figure 4.7
FIGURE 4.7 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR GENERAL HEALTH CONDITION
H₀Ɽ: There is no significant difference in the emotional competence of women teacher trainees from joint family and those from nuclear family.

Table 4.10 showing Mean, S.D, S.Eₘ and ‘t’ value of emotional competence scores of the groups on the basis of the system of their family.

<table>
<thead>
<tr>
<th>System of Family</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.Eₘ</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td>70</td>
<td>103.943</td>
<td>16.762</td>
<td>2.00</td>
<td>2.302*</td>
</tr>
<tr>
<td>Nuclear</td>
<td>180</td>
<td>100.283</td>
<td>15.209</td>
<td>1.034</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

It is evident from the above table, that the calculated ‘t’ value 2.302 is more than the table value 1.645 at 5% level of significance.

A significant difference is observed in the emotional competence of woman teacher trainees who hail from joint family and that of those who come from nuclear family. The above table shows that woman teacher trainees from joint family reveal higher emotional competence than their counterparts from nuclear family.

A joint family system, though it has been deteriorating nowadays, is still found in rural areas. Children growing up in a nuclear family may be self centered and their level of social adjustment may be low since they may find it difficult to adapt themselves to new environment.

However, children from joint family system may be capable of adapting to different circumstances, while children from nuclear family are supposed to be independent; those from joint family may be dependent on other members of the family. Such emotional climate may affect the psyche of not only the children but also the adults. Hence, the system of family is considered as a variable, effect of which on emotional competence to be studied.
The finding of the above analysis is of the view that women teacher trainees who hail from joint family are more competent emotionally than their counterparts who come from nuclear family.

**Hence the Null Hypothesis Ho, is rejected.**

The graphical representation is shown in figure 4.8
FIGURE 4.8 SHOWING MEAN AND SD OF EMOTIONAL
COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR
SYSTEM OF THEIR FAMILY

□ JOINT FAMILY
■ NUCLEAR FAMILY

MEAN
SD

JOINT FAMILY
NUCLEAR FAMILY
**Ho\textsubscript{10}:** There is no significant difference in the emotional competence of urban women teacher trainees and rural women teacher trainees.

Table 4.11 showing Mean, S.D, S.E\textsubscript{m} and ‘t’value of emotional competence scores of the groups on the basis of the location of their residence.

<table>
<thead>
<tr>
<th>Locality of Residence</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E\textsubscript{m}</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>115</td>
<td>106.414</td>
<td>16.502</td>
<td>1.539</td>
<td>2.606*</td>
</tr>
<tr>
<td>Rural</td>
<td>135</td>
<td>101.118</td>
<td>15.428</td>
<td>1.328</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

The above table indicates that the calculated ‘t’ value 2.606 is more than the table value 1.645 at 5% level of significance.

There is a significant difference between the emotional competence of the urban woman teacher trainees and that of rural woman teacher trainees.

It is observed that, among the number of candidates joining D.T.Ed course, students from rural areas are higher in number than those from urban areas. This may be due to the fact that the medium of instruction of the D.T.Ed course is the regional language (i.e) Tamil which the rural students find easier than English. Moreover, this diploma course qualifies them to work as primary teachers in government schools where Tamil is the medium of instruction. On the contrary, urban areas provide a lot of educational opportunities and hence urban students have varied options to choose from apart from the D.T.Ed course. Through her observation, the investigator has found that the locality of residence plays an important role in adjusting academics, intelligence and creativity. So, she intends to find out the influence of the locality of residence, rural or urban, on the emotional competence of women teacher trainees.
The finding concludes that the urban women teacher trainees have higher level of emotional competence than their rural counterparts. It may be accepted on the grounds that urban people are able to regulate their emotions since they are experienced in coping up with regular emotional stress caused by their hectic life style. Though their race against time leaves them emotionally drained, they become well adjusted to the emotional disturbance they face, in the course of time, it is believed. The conclusion arrived at, through this analysis, proves the above observation.

**Hence the Null Hypothesis \( H_{10} \) is rejected.**

The graphical representation is shown in figure 4.9
FIGURE 4.9 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THE LOCALITY OF THEIR RESIDENCE

![Bar chart showing mean and standard deviation of emotional competence of female teacher trainees based on locality of residence. The chart compares urban and rural areas. The mean for urban is significantly higher than that for rural.]
Ho_{11}: There is no significant difference in the emotional competence of women teacher trainees based on their fathers’ educational status.

Table 4.12 showing Mean, S.D, S.E_{m} and ‘t’ value of emotional competence scores of the groups on the basis of their fathers’ educational status.

<table>
<thead>
<tr>
<th>Educational Status of Father</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_{m}</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal education</td>
<td>93</td>
<td>99.366</td>
<td>17.428</td>
<td>1.807</td>
<td>2.439*</td>
</tr>
<tr>
<td>Informal education</td>
<td>157</td>
<td>104.623</td>
<td>14.698</td>
<td>1.173</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.5 level

The above table shows that the calculated ‘t’ value 2.439 is more than the table value at 5% level of significance.

Emotional competence of women teacher trainees whose fathers have informal education is found to be on the higher level than their counterparts whose fathers have formal education. A father’s personality is believed to influence his children mentally, emotionally and psychologically. Since education is expected to develop an individual’s personality, educational status of the father is sure to have a positive influence on his children.

Hence, the investigator has decided to study the impact of the educational status of the fathers of women teacher trainees on their emotional competence. However, it should be noted that education status of a person cannot be measured only through his academic qualifications. Knowledge and wisdom gained through years of life experience should not be ruled out in measuring the level of educational status of a person. So, the educational status of father is categorized as formal education and informal education.
The above analysis indicates that the emotional competence score of women teacher trainees whose fathers have informal education is greater than the other category. Hence, there is significant different in the emotional competence of women teacher trainees with respect to the educational status of their fathers.

**Hence the Null Hypothesis Ho11 is rejected.**

The graphical representation is shown in figure 4.10.
Figure 4.10 showing mean and SD of emotional competence of female teacher trainees as per the educational status of their father.

- Formal Education
- Informal Education

Mean and SD comparison for emotional competence.
H_{012}: There is no significant difference in the emotional competence of women teacher trainees based on their mothers’ educational status.

Table 4.13 showing Mean, S.D, S.Em and ‘t’ value of emotional competence scores of the groups on the basis of their mothers’ educational status.

<table>
<thead>
<tr>
<th>Educational Status of Mother</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.Em</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal education</td>
<td>96</td>
<td>103.75</td>
<td>16.982</td>
<td>1.733</td>
<td>0.111</td>
</tr>
<tr>
<td>Informal education</td>
<td>154</td>
<td>103.514</td>
<td>15.102</td>
<td>1.216</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.5 level

From the above table, it is clear that the calculated ‘t’ value 0.111 is less than the table value 1.645 at 5% level of significance.

Though father’s educational status is found to have a significant impact on the women teacher trainees no variation is found between the emotional competence of the women teacher trainees whose mothers had formal education and those whose mothers had informal education. This proves that mothers, whether they are formally educated or informally educated, have the same level of influence on the emotional competence of their daughters. So, educational status of mother is found to have no impact on the emotional competence of women teacher trainees.

**Hence the Null Hypothesis H_{012} is accepted.**

The graphical representation is shown in figure 4.11
FIGURE 4.11 SHOWING MEAN AND SD OF EMOTIONAL COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THE EDUCATIONAL STATUS OF THEIR MOTHER

- FORMAL EDUCATION
- INFORMAL EDUCATION
4.3 (B) Differential Analysis of Teaching Competence

**H_013**: There is no significant difference in the teaching competence between the women teacher trainees who belong to the age category of late adolescence and that of early adulthood.

**Table 4.14 showing Mean, S.D, S.E_m and ‘t’ value of teaching competence scores of the groups on the basis of age category.**

<table>
<thead>
<tr>
<th>Age Category</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Adolescence, 18-20 Yrs</td>
<td>119</td>
<td>117.554</td>
<td>12.111</td>
<td>1.233</td>
<td></td>
</tr>
<tr>
<td>Early Adulthood, 21-25 Yrs</td>
<td>131</td>
<td>120.565</td>
<td>15.318</td>
<td>1.791</td>
<td>1.731</td>
</tr>
</tbody>
</table>

*Significant at 0.5 level

From the above table, it is obvious that the calculated ‘t’ value 1.731 is higher than the table value 1.645 at 5% level of significance. This indicates that the difference in teaching competence scores of women teacher trainees with respect to their age group is significant.

During the developmental stages of an individual, the transition from adolescence to adulthood is crucial since physical, mental and emotional maturity are supposed to take place during this period. As far as women teacher trainees are considered, maturity in all aspects enables them to gain self-confidence and self-concept which may mould them as competent teachers. Hence, it is decided to contemplate the effect of age factor on the teaching competence of women teacher trainees in the present study.
The finding of the above analysis suggests that the teaching competence score of women teacher trainees who are in the age category of early adulthood is on the higher level than their counterparts who are in the age category of late adolescence which proves that the maturity gained through age does have an impact on teaching competence.

**Hence the Null Hypothesis Ho13 is rejected.**

The graphical representation is shown in figure 4.12
FIGURE 4.12 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR AGE CATEGORY
$H_0$: There is no significant difference in the teaching competence between the women teacher trainees based on their subject group in higher secondary course.

Table 4.15(a) showing Mean, S.D, of teaching competence scores of the groups on the basis of their subject group in higher secondary course.

<table>
<thead>
<tr>
<th>Subject group</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>112</td>
<td>112.8214</td>
<td>16.6913</td>
<td>1.577</td>
</tr>
<tr>
<td>Arts</td>
<td>82</td>
<td>109.2805</td>
<td>15.9662</td>
<td>1.763</td>
</tr>
<tr>
<td>Vocational</td>
<td>56</td>
<td>103.42</td>
<td>13.0595</td>
<td>1.745</td>
</tr>
</tbody>
</table>

*Significant at 0.5 level

From the above table, it is found that the mean teaching competence value of the students who had studied in the science stream is the highest among the three categories with the vocational group students scoring the least.

Specializing in Science enhances the scientific attitude of an individual. It also develops the students' practical skills and knowledge which help the teacher trainees to excel in the essential skills needed to be competent in teaching. Learning arts subjects also improves the communication and leadership qualities that are necessary in the development of the teaching competence. On the other hand, vocational group students may lack the skills developed through regular academic subjects. Hence, the teaching competence of the trainees who have taken vocational group being on the lower side is justified.
ANOVA test is applied to find out whether there is any significant difference among the variables and the results are presented in table 4.15 (b)

Table 4.15 (b)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>‘F’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>3308.888</td>
<td>1654.444</td>
<td>4.443</td>
</tr>
<tr>
<td>Within Groups</td>
<td>247</td>
<td>91981.481</td>
<td>372.3946</td>
<td></td>
</tr>
</tbody>
</table>

From the above table, it is observed that the calculated F value 4.443 is more than the Table value 3.00 at 5% level of significance. Therefore, the difference in the teaching competence scores of the student teachers with respect to their subject group in higher secondary is significant.

Hence the Null Hypothesis $H_0$ is rejected.

The graphical representation is shown in figure 4.13
FIGURE 4.13 SHOWING MEAN AND SD OF TEACHING
COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR
SUBJECT GROUPS

SCIENCE  ARTS  VOCATIONAL

MEAN  SD

0  20  40  60  80  100  120
H₀₁₅: There is no significant difference between the teaching competence of married women teacher trainees and that of unmarried women teacher trainees.

Table 4.16 showing Mean, S.D, S.Eₘ, and ‘t’value of teaching competence scores of the groups on the basis of their marital status.

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.Eₘ</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>90</td>
<td>121.789</td>
<td>14.441</td>
<td>2.317</td>
<td>0.284</td>
</tr>
<tr>
<td>Unmarried</td>
<td>160</td>
<td>120.781</td>
<td>14.057</td>
<td>1.235</td>
<td></td>
</tr>
</tbody>
</table>

From the above table, it is obvious that the calculated ‘t’ value 0.284 is less than the table value 1.645 at 5% level of significance. It is understood that the variation between the mean teaching competence of married women teacher trainees and that of unmarried women teacher trainees is not significant.

Women are supposed to show some maturity after their marriage. This may facilitate their skills in teaching. Hence, marital status is expected to have an impact on teaching competence of women teacher trainees. Thus considering, the marital status as an intervening variable for the present study is justified.

However, the above analysis presents the finding otherwise. It is found that the married women teacher trainees do not differ from unmarried women teacher trainees in their teaching competence. This may due to the role played by the age factor. Among the 160 unmarried women teacher trainees, most of them belong to the age
group of 21-25 years who are 131 in number. Likewise, among the 119 late adolescent women teacher trainees, there may be married trainees since marrying early at the age of 18 years is not unlikely in the rural parts of Tamilnadu. So, the non-significance in the variation between the teaching competence scores of married and unmarried women teacher trainees is plausible.

**Hence the Null Hypothesis $H_0$ is accepted.**

The graphical representation is shown in figure 4.14
FIGURE 4.14 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR MARITAL STATUS

- MARRIED
- UNMARRIED

![Bar Chart](image)
Ho\textsubscript{16}: There is no significant difference between the teaching competence of vegetarian women teacher trainees and that of non-vegetarian women teacher trainees.

Table 4.17 showing Mean, S.D, S.E\textsubscript{m} and \textquoteleft t\textquoteright value of teaching competence scores of the groups on the basis of their food habits.

<table>
<thead>
<tr>
<th>Food Habits</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E\textsubscript{m}</th>
<th>\textquoteleft t\textquoteright</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetarian</td>
<td>150</td>
<td>122.327</td>
<td>12.977</td>
<td>1.123</td>
<td>0.713</td>
</tr>
<tr>
<td>Non-Vegetarian</td>
<td>100</td>
<td>120.97</td>
<td>15.819</td>
<td>2.502</td>
<td></td>
</tr>
</tbody>
</table>

The above table illustrates that the calculated \textquoteleft t\textquoteright value 0.713 is less than the table value 1.645 at 5% level of Significance. It indicates that there is no significant difference in the teaching competence score of vegetarian women teacher trainees and non-vegetarian women teacher trainees.

Food habits of an individual are believed to play an important role in affecting the composure of oneself which may help in performing one's professional duties effectively. Hence, the effect of food habits on teaching competence of women teacher trainees is studied in the present study.

The finding of the analysis interprets that there is no variation between the teaching competence scores of vegetarian women teacher trainees and non-vegetarian women teacher trainees.

Hence the Null Hypothesis Ho\textsubscript{16} is accepted.

The graphical representation is shown in figure 4.15
FIGURE 4.15 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR FOOD HABITS

□ VEGETARIAN
□ NON-VEGETARIAN

Mean

SD
There is no significant difference between the teaching competence of women teacher trainees with hobbies and those without hobbies.

Table 4.18 showing Mean, S.D, S.E_m and ‘t’ value of teaching competence scores of the group on the basis of their hobbies.

<table>
<thead>
<tr>
<th>Hobbies</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>With hobbies</td>
<td>160</td>
<td>121.881</td>
<td>14.682</td>
<td>1.347</td>
<td>2.125*</td>
</tr>
<tr>
<td>Without hobbies</td>
<td>90</td>
<td>118.033</td>
<td>13.191</td>
<td>1.933</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.5 level

The above table points out that the calculated ‘t’ value 2.215 is more than the table value 1.645 at 5% level of significance. It is obvious that the teacher trainees who spend their leisure time in useful hobbies are more competent in teaching than their counterparts who do not have any specific hobbies.

In the research paper, titled ‘The Impact of Emotions on Health and well-Being’, Swani Prarthna (2006) suggests that working on a hobby helps people feel calm, creative and happy. Creativity, through various researches, is proved to have a favorable influence on teaching competence. Hence, the impact of pursuing specific hobbies on the teaching competence is studied in the present research.

The above analysis concludes that getting engaged in hobbies, indeed, has a positive impact on the teaching competence of women teacher trainees.

**Hence the Null Hypothesis Ho_{17} is rejected.**

The graphical representation is shown in figure 4.16
FIGURE 4.16 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR HOBBIES

- WITH HOBBIES
- WITHOUT HOBBIES
H₀₁₈: There is no significant difference in the teaching competence of women teacher trainees based on their extra physical activity.

Table 4.19 showing Mean, S.D, S.Eₘ and ‘t’ value of teaching competence scores of the groups on the basis of their extra physical activity.

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.Eₘ</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>With extra physical activity</td>
<td>80</td>
<td>123.033</td>
<td>13.190</td>
<td>1.475</td>
<td>1.052</td>
</tr>
<tr>
<td>Without extra physical activity</td>
<td>170</td>
<td>121.081</td>
<td>14.682</td>
<td>1.126</td>
<td></td>
</tr>
</tbody>
</table>

The above table shows that the calculated ‘t’ value 1.052 is less than the table value 1.645 at 5% level of significance. The above analysis shows that there is no significant difference in the teaching competence of women teacher trainees with respect to the extra of physical activity they do in a day.

Physical activity, apart from the regular domestic chores, keeps one physically fit. Teachers need much energy to carry out their professional duties efficiently. In order to find out if performing extra physical activity alters the teaching competence of women teacher trainees favorably, the presence or absence of physical activity is considered for the present study.

However, the above analysis indicates that teaching competence is not altered by the extra physical activity. So, there is no significant difference in the teaching competence of women teacher trainees with respect to the extra physical activity they do in a day.

Hence the Null Hypothesis H₀₁₈ is accepted.

The graphical representation is shown in figure 4.17
FIGURE 4.17 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR EXTRA PHYSICAL ACTIVITY
H₀₁⁹: There is no significant difference in the teaching competence of women teacher trainees based on their general health condition.

Table 4.20 showing Mean, S.D, S.Eₘ and ‘t’ value of teaching competence scores of the groups on the basis of their general health condition.

<table>
<thead>
<tr>
<th>General Health condition</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.Eₘ</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>207</td>
<td>121.768</td>
<td>13.775</td>
<td>0.917</td>
<td>2.361*</td>
</tr>
<tr>
<td>With Mild Chronic Illness</td>
<td>43</td>
<td>116.860</td>
<td>12.101</td>
<td>3.405</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

From the above table, it is understood that the calculated ‘t’ value 2.361 is more than the table value 1.645 at 5% level of significance.

Being active and energetic in the class while teaching is an essential trait a teacher should possess and it requires of a teacher to be healthy. Mild health problems like migraine and breathing problems are found to have hindered the skills necessary for teaching. Hence, the impact of general health condition is put to study by the researcher.

Results of the above analysis reveal that the women teacher trainees with normal condition possess higher level of teaching competence than those with mild health problems.

Hence the Null Hypothesis H₀₁⁹ is rejected.

The graphical representation is shown in figure 4.18
FIGURE 4.18 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THEIR GENERAL HEALTH CONDITION
Ho$_{20}$: There is no significant difference in the teaching competence of women teacher trainees from joint family and the teaching competence of women teacher trainees from nuclear family.

Table 4.21 showing Mean, S.D, S.E$_m$ and ‘t’ value of teaching competence scores of the groups on the basis of the system of their family.

<table>
<thead>
<tr>
<th>System of Family</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E$_m$</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td>70</td>
<td>122.443</td>
<td>14.904</td>
<td>3.173</td>
<td>0.444</td>
</tr>
<tr>
<td>Nuclear</td>
<td>180</td>
<td>121.528</td>
<td>13.905</td>
<td>1.074</td>
<td></td>
</tr>
</tbody>
</table>

The above table shows that the calculated ‘t’ value 0.444 is less than the table value 1.645 at 5% level of significance. It reveals that the level of teaching competence of women teacher trainees hailing from joint family is the same as the teaching competence level of women teacher trainees from nuclear family.

This makes it clear that the system of family has no impact on the teaching competence of women teacher trainees.

**Hence the Null Hypothesis Ho$_{20}$ is accepted.**

The graphical representation is shown in figure 4.19
FIGURE 4.13 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THE SYSTEM OF THEIR FAMILY
H$_{021}$: There is no significant difference in the teaching competence of urban women teacher trainees and rural women teacher trainees.

Table 4.22 showing Mean, S.D, S.E$_{m}$ and ‘t’ value of teaching competence scores of the groups on the basis of the location of their Residence.

<table>
<thead>
<tr>
<th>Locality of Residence</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E$_{m}$</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>115</td>
<td>123.681</td>
<td>12.122</td>
<td>1.278</td>
<td>1.91*</td>
</tr>
<tr>
<td>Rural</td>
<td>135</td>
<td>120.348</td>
<td>15.445</td>
<td>1.767</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

The above table suggests that the calculated ‘t’ value 1.91 is greater than the table value 1.645 at 5% level of significance the urban women teacher trainees are found to have higher level of teaching competence than their rural counterparts. Urban environment provides easy accession to modern technology such as internet, etc. that may facilitate chances to improve one’s teaching capabilities. So, the researcher has selected the locality of residence as an intervening variable in order to find its influence on teaching competence of women teacher trainees.

The finding proves that there is significant difference between the teaching competence of rural and urban women teacher trainees.

**Hence the Null Hypothesis H$_{021}$ is rejected.**

The graphical representation is shown in figure 4.20
FIGURE 4.20 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TEACHER TRAINEES AS PER THE LOCALITY OF THEIR RESIDENCE
There is no significant difference in the teaching competence of women teacher trainees based on their fathers’ educational status.

Table 4.23 showing Mean, S.D, S.E\_m and \('t'\) value of teaching competence scores of the groups on the basis of their fathers’ educational status.

<table>
<thead>
<tr>
<th>Educational Status of Father</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E_m</th>
<th>('t')</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal education</td>
<td>93</td>
<td>123.901</td>
<td>11.091</td>
<td>1.323</td>
<td>0.942</td>
</tr>
<tr>
<td>Informal education</td>
<td>157</td>
<td>121.293</td>
<td>15.067</td>
<td>1.446</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

The above table points out that the calculated \('t'\) value 0.942 is less than the table value 1.645 at 5% level of significance.

It shows that the difference between the teaching competence level of women teacher trainees whose fathers had formal education and that of the women teacher trainees whose fathers had informal education is not significant.

Since teaching competence can be improved through various other approaches executed by the trainees, it may not be altered by the educational status of their fathers. The finding of the above analysis substantiates that father’s educational status does not affect his daughter’s teaching competence.

**Hence the Null Hypothesis H\_022 is accepted.**

The graphical representation is shown in figure 4.21
FIGURE 4.21 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TACHE TRIANEES AS PER THE EDUCATIONAL STATUS OF THEIR FATHER

- FORMAL EDUCATION
- INFORMAL EDUCATION
FIGURE 4.21 SHOWING MEAN AND SD OF TEACHING COMPETENCE OF FEMALE TACHE TRIANNEES AS PER THE EDUCATIONAL STATUS OF THEIR FATHER

- FORMAL EDUCATION
- INFORMAL EDUCATION

<table>
<thead>
<tr>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FORMAL EDUCATION

INFORMAL EDUCATION
Ho$_{23}$: There is no significant difference in the teaching competence of women teacher trainees based on their mothers’ educational status.

Table 4.24 showing Mean, S.D, S.E$_{m}$ and ‘t’ value of teaching competence scores of the groups on the basis of their mothers’ educational status.

<table>
<thead>
<tr>
<th>Educational Status of Mother</th>
<th>No</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal education</td>
<td>104</td>
<td>122.271</td>
<td>12.947</td>
<td>1.612</td>
<td>0.802</td>
</tr>
<tr>
<td>Informal education</td>
<td>146</td>
<td>120.849</td>
<td>14.947</td>
<td>1.530</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.5 level

The calculated ‘t’ value 0.802 obtained from the above table is less than the table value 1.645 at 5% level of significance. This shows that there is no significant difference in the teaching competence of women teacher trainees with respect to their mothers’ educational status.

Since there are various other factors that accelerate teaching competence, mother’s educational status may not have any effect on her daughter’s teaching competence. This is proved by the finding of the above analysis.

No significant difference is found between the level of teaching competence of women teacher trainees whose mothers had formal education and that of the women teacher trainees whose mothers had informal education.

**Hence the Null Hypothesis Ho$_{23}$ is accepted.**

The graphical representation is shown in figure 4.22
Figure 4.22 showing mean and SD of teaching competence of female teacher trainees as per the educational status of their mother.
4.4 Conclusion

The data gathered for present study considering women teacher trainees as the sample population are analyzed statistically and interpreted logically to arrive at various conclusions. The findings of the present study are presented in the next chapter.