CHAPTER IV

SUMMARY, CONCLUSIONS AND SUGGESTIONS
SUMMARY, CONCLUSIONS AND SUGGESTIONS

Introduction

During the past 50 yrs, particularly in the last decade or so, an unusual amount of attention has been centered on a segment of the child population formerly neglected and little understood the gifted, talented, and creative individuals whose promise, when fulfilled, enlightens the world. Close psychological scrutiny and educational experimentation have led to new understanding of these individuals as human beings with the right to self-fulfillment and to the kind of education that makes the realization of their full potential possible. Concern has been shown not only for gifted children from good homes and in excellent schools who immediately stand out from the crowd, but for hidden talent among youths of limited background and opportunity in depressed areas, whether in crowded cities, or remote places. Today, in view of the world's needs for expertness in every phase of public life and private enterprise, the need to discover and conserve superior abilities and creative talent has a new urgency.

Title of the Study

COMPARISON OF GIFTED AND AVERAGE STUDENTS WITH RESPECT TO THEIR CAREER CHOICES, PERSONALITY AND FAMILY ENVIRONMENT AT THE SENIOR SECONDARY STAGE.

Objectives of the Study

The major objective was to compare gifted and average students on the variables of career choices, personality factors and family environment.

In order to achieve this objective, it was essential to identify gifted students from a total sample of 1118 collected for this study.
Further, the study was carried out with the secondary objectives as well. Thus, all the objectives major as well as secondary, are given below:

1. **Major Objective**
   To identify and select gifted and average students from among the total sample and to compare gifted and average students on the variables of career choices, personality factors and family environment.

2. **Secondary Objectives**
   i) **Sexwise Comparison:** The objective was to compare gifted and average males and females on the variables under study.
   
   ii) **Subjectwise Comparison:** To compare gifted and average students in the subjects of Arts, Science and Commerce groups on the variables under study.

3. **Bivariate Relationships**
   To study the nature, extent and magnitude of relationship between intelligence, achievement, career choices, personality factors and family environment of gifted and average groups.

4. **Multivariate Analysis: Factor Analysis**
   To study the underlying structure of variables i.e. career choices, personality factors and family environment which constellates together under a canopy of gifted and average groups.

**Hypotheses of the Study**
In accordance with major and secondary objectives of the study various hypotheses were formulated which are stated as follows:
1. Main Hypotheses

Comparison of Intellectually Gifted and Intellectually Average Students on all the variables under study.

The significant differences exist on the variables of career choices, personality factors and family environment between gifted and average students.

Career Choices

The gifted students prefer more of scientific, technical type of vocations which require top level management in comparison to their average counterparts who prefer social service, business, arts and entertainment type of vocations.

Personality Factors

The gifted students are more independent, self-confident, mature, anxious, highly-competitive, more adjusted, emotionally stable, obedient, have high super ego, sociable, bold, intelligent, relaxed, self-sufficient, practical in comparison to their average counterparts.

Family Environment

The gifted students in their families perceive more of cohesion, expressiveness, independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation whereas in case of average students, perception of their family environment is characterised more by moral-religious emphasis, organisation and control.

2. Secondary Hypotheses

i) Sexwise Comparisons: Sex distinguishes the gifted and average on the variables of career choices, personality factors and family environment.
Inter Group Comparisons

a) Comparison Between Gifted Males and Average Males

The significant differences exist on the variables of career choices, personality factors and family environment between gifted males and average males.

Career Choices

Gifted males prefer more of scientific, technical type of vocations which require top level management in comparison to their average male counterparts.

Personality Factors

Gifted males are self-confident, reserved, highly intelligent, tender-minded, possess higher ego strength, controlled, enthusiastic, socially bold in comparison to their average male counterparts.

Family Environment

The family environment of gifted males have more of cohesion, expressiveness, independence, organisation in comparison to their average male counterparts.

b) Comparison Between Intellectually Gifted Females and Intellectually Average Females

The significant differences exist on the variables of career choices, personality factors and family environment between gifted females and average females.

Career Choices

Gifted females prefer more of scientific, artistic, computational, social service type of vocations in comparison to their average female counterparts.
Personality Factors

Gifted females are more controlled, intelligent, self-confident in comparison to their average female counterparts.

Family Environment

The gifted females are gifted because of more of cohesion, expressiveness, achievement orientation, independence and organisation in their families in comparison to their average female counterparts.

Within Group Comparisons

a) Comparison Between Intellectually Gifted Males and Intellectually Gifted Females

The significant differences exist on the variables of career choices, personality factors and family environment between intellectually gifted males and females.

Career Choices

Gifted males prefer scientific, technical type of occupations in comparison to females who prefer artistic, computational, social service type of occupations.

Personality Factors

Gifted males are self-confident, reserved, intelligent, tender-minded, possess higher ego strength, controlled, enthusiastic, socially bold in comparison to gifted females.

Family Environment

Gifted males perceive more of cohesion, expressiveness, independence, achievement orientation in their families whereas the females perceive more of organisation, achievement orientation, control in their families.
b) **Comparison Between Average Males and Average Females**

The significant differences exist the variables of career choices, personality factors and family environment between average males and females.

**Career Choices**

The average males prefer more of mechanical, artistic, social service, business, scientific types of vocations in comparison to females.

**Personality Factors**

The average males are more realistic, casual, extrovert, self-rejecting, tender-minded, withdrawing in comparison to females who are dominant, less realistic, self-confident, socially precise, shy.

**Family Environment**

The average males have more of independence, achievement orientation, active-recreational orientation in their families in comparison to females who have more achievement orientation, organisation, control, moral-religious emphasis in their families.

(ii) **Subjectwise Comparisons:** The gifted and average arts, science and commerce students will be compared on the variables of career choices, personality factors and family environment.

a) **Comparison Between Gifted and Average Arts Groups**

The significant differences exist on the variables of career choices, personality factors and family environment.

**Career Choices**

The gifted arts group prefer technical, arts and entertainment, organisation type of vocations in comparison to their average arts group who prefer social service, general culture.
Personality Factors

The gifted arts students are more independent, self-confident, mature, anxious, highly-competitive, obedient, relaxed, tender-minded in comparison to average arts students.

Family Environment

The gifted arts group perceive more of cohesion, expressiveness, independence, achievement orientation, intellectual cultural orientation, active-recreational orientation whereas in case of average arts group the family environment is characterised more by moral-religious emphasis, organisation and control.

b) Comparison Between Gifted and Average Science Groups

The significant differences exist on the variables of career choices, personality factors and family environment between gifted and average science students.

Career Choices

The gifted science group prefer technical, organisation, scientific type of vocations in comparison to average science group who prefer scientific, social work, general culture type of vocations.

Personality Factors

The gifted science students are more confident, emotionally stable, practical, independent, relaxed, obedient in comparison to their average science group counterparts.

Family Environment

The gifted science group perceive more of cohesion, expressiveness, independence, achievement orientation, organisation in comparison to their
c) **Comparison Between Gifted and Average Commerce Groups**

The significant differences exist on the variables of career choices, personality factors and family environment between gifted and average commerce students.

**Career Choices**

The gifted commerce group prefer more of technological, computational, mathematical type of vocations in comparison to their average counterparts.

**Personality Factors**

The gifted commerce students are confident, resourceful, self-sufficient, reflective, tender-minded, enthusiastic in comparison to their average commerce group counterparts.

**Family Environment**

The Gifted commerce group perceive more of cohesion, expressiveness, organisation, less of conflict, more of achievement orientation in their families in comparison to their average commerce group counterparts.

3. **Bi-Variate Relationships**

There exist significant correlations between intelligence, achievement, career choices, personality factors and family environment of gifted and average groups.

4. **Multivariate Analysis: Factor Analysis**

Some dimensions of each of the variables of career choices, personality factors and family environment constellate together under a particular canopy of factor. Different factor structure of variables will be observed in case of gifted
and average groups.

Design of the Study

The investigation employed descriptive research. Descriptive research, unlike assessment and evaluation, is concerned with hypothesis formulation and testing, the analysis of the relationships between non manipulated variables, and the development of generalizations. In descriptive research variables that exist or have already occurred are selected and observed. This process is described as ex post facto, explanatory observational, or causal-comparative research. Both descriptive and experimental methods employ careful sampling procedures so that generalizations may be extended to other individuals, groups, times or settings.

This study is ex post facto or causal comparative in the sense that in accordance with the various objectives, an attempt was made to study the relationship of the variables under study. In this study the comparisons were made between gifted and average students.

It is explanatory in the sense that though much work has been done in the field, the giftedness as related to the career choices, personality and family environment is relatively less explored. Thus present study is a survey with definite objectives, analysis and interpretation of the data gathered and skillful reporting of the findings.

Sample of the Study

In view of limited resources of time, money, test material etc. it was decided to select sample from the city of Chandigarh only, by employing purposive and incidental technique. The sample composed of 1118 students (Boys=566, Girls=552) selected from the Government Model Senior Secondary Schools of Chandigarh city. The intellectually gifted and intellectually average
students were selected from the above sample.

Sample of Intellectually Gifted Students

<table>
<thead>
<tr>
<th>Stream</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>12</td>
<td>17</td>
<td>29</td>
</tr>
<tr>
<td>Science</td>
<td>61</td>
<td>54</td>
<td>115</td>
</tr>
<tr>
<td>Commerce</td>
<td>15</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>106</td>
<td>194</td>
</tr>
</tbody>
</table>

Sample of Intellectually Average Students

<table>
<thead>
<tr>
<th>Stream</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>119</td>
<td>86</td>
<td>205</td>
</tr>
<tr>
<td>Science</td>
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<td>55</td>
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<tr>
<td>Commerce</td>
<td>64</td>
<td>84</td>
<td>148</td>
</tr>
<tr>
<td>Total</td>
<td>281</td>
<td>225</td>
<td>506</td>
</tr>
</tbody>
</table>

Tools Used in the Study
The following tools were used in the study:

Tests Used for Identification of Gifted Students
1. Intelligence test [Standard Progressive Matrices by Raven, J.C. (1977)].
2. Academic Achievement Scores.
3. Trait Checklist (Bhatt, 1971) (Teacher's rating to identify gifted students).

Tests Used for Collection of Data for the Study
The following tests were used for the collection of data for the study:
1. Semantic Differential Scale for Occupational choice by Mohan and Banth (1975) to measure career choices;
2. High School Personality Questionnaire (HSPQ) by Cattell, R.B. (1963) Form A as a measure of personality factors;

Statistical Techniques Used in the Study

In accordance with various objectives of the study and accordingly to test the hypotheses, different statistical techniques were employed.

1. Descriptive Analysis
   Measures of central tendency such as Mean's, Standard errors of mean’s, standard deviations, standard error of deviations, SK and KU were worked out to study the nature and distribution of different variables under study.

2. Comparative Analysis
   t ratios were worked out for all types of comparisons between gifted and average students on the variables under study i.e. sexwise and subjectwise comparisons (Arts, Science and Commerce).

3. Correlational Analysis: Bivariate Relationships
   Pearson's product moment correlation was worked out to establish relationships of variables under study.

4. Factorial Analysis
   Factorial Analysis was done to study the factor structure of the variables under study.

Main Findings and Conclusions

The following conclusions were drawn as a result of the various objectives and hypotheses tested in this study:
Conclusions Based on Section I Descriptive Analysis (Total Sample=1118) vide Table 3.1.1.

In the present study, means were worked out to see the nature and distribution of the variables i.e. career choices, personality factors and family environment.

Skewness and Kurtosis

The range of skewness is from -.01 to -.61 and the kurtosis ranges from .22 to .33 in case of all the variables. Both skewness and kurtosis with respect to all the variables fall within the range of normality.

Conclusion Based on Intelligence

The level of intelligence of the whole group was found to be average, falling between 25th and 75th percentile points (M=46.32).

Conclusion Based on Teacher Ratings

The level of academic performance in the studies of students was found to be average (M=263.73, out of M.M.=500) i.e. 53%.

The hypothesis that the intelligence, teacher ratings and achievement of the whole group will fall on the average category got a full support.

Conclusion Based on Career Choices

The students indicated very high preferences for social, scientific and technological type of vocations followed by high preferences for business, organisation, general culture, arts and entertainment.

Hypothesis Pertaining to Career Choices

The hypothesis that the students indicate high preferences for social, scientific, business, arts and entertainment was proved partially because students were found to have indicated very high preferences for social, scientific vocations and high preferences for business, arts and entertainment.
Conclusion Based on Personality

The whole group was mostly found to have moderate traits of personality. The students were found to be reserved, warmhearted A (V28), average in intelligence B (V29), affected by feelings, emotionally stable C (V30), undemonstrative, impatient D (V31), obedient, stubborn E (V32), sober, enthusiastic F (V33), conscientious, expedient G (V34), shy, socially bold H (V35), tough-minded, sensitive I (V36), zestful, reflective J (V37), self-assured, resourceful (V38), sociably group dependent, resourceful Q2 (V39), uncontrolled, controlled Q3 (V40), relaxed, tense Q4 (V41).

Hypothesis Pertaining to Personality

The hypothesis that the distribution of the whole group will fall in average category on the variables of personality got a full support because students exhibited moderate or average traits of personality.

Conclusion Based on Family Environment

The students scored very low on relationship dimensions but scored high on personal growth and system maintenance dimensions where the family laid more emphasis on achievement orientation, intellectual-cultural orientation, moral-religious emphasis, organisation and control.

Hypothesis Pertaining to Family Environment

The hypothesis that the students perceive in their family more of cohesion, less of conflict, less of expressiveness and independence, more of achievement orientation, organisation and moral-religious emphasis was proved to a large extent because the students perceived in their family more of achievement orientation, organisation, moral-religious emphasis, less of expressiveness.
Conclusions Based on Comparative Analysis

T ratios were worked out with a view to compare gifted and average students, gifted and average males and females, various subject groups viz. Arts, Science and Commerce on the variables of Career choices, personality factors and family environment (vide Table 3.3.1 through 3.3.8).

Comparison Between Intellectually Gifted (N=194) and Intellectually Average (N=506) Groups (Vide Table 3.3.1)

Career Choices

From among the variables of career choices, the significant differences were found on technology, science, arts and entertainment, outdoor activities in favour of gifted students indicating their high preference for these vocations. Social service, organisation, general culture was in favour of average students, who preferred more of these vocations in comparison to their gifted counterparts.

The hypothesis that gifted students prefer more of scientific, technical type of vocations which require top level management in comparison to their average counterparts who prefer social service, business, arts and entertainment type of vocations proved to a large extent.

Personality Factors

The significant differences were found on factor B i.e. intelligence and $Q_2$ (Group dependency vs. Self- sufficiency) in favour of gifted group. This means the gifted are more intelligent, self-sufficient than the average students. On other traits, non-significant differences on the personality factors reveal that the
two groups seem to be at part.

The hypothesis that the gifted students are more self-confident, mature, anxious, highly competitive, more adjusted, emotionally stable, obedient, have high super ego, sociable bold, intelligent, relaxed, self-sufficient, practical in comparison to their average counterparts got a partial support, as the differences in their favour were found only on intelligence (B) and Q2 i.e. self-sufficiency.

Family Environment

The significant differences were found on cohesion and expressiveness in favour of gifted group. This means that cohesion and expressiveness contributes to giftedness.

The hypothesis that the gifted students perceive in their families more of cohesion, expressiveness, independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation whereas in case of average students, perception of their family environment is characterised more by moral-religious emphasis, organisation and control got only a partial support.

Secondary Analysis : Inter and Within Group Comparisons

Inter Group Comparisons

Comparison Between Intellectually Gifted Males (N=88) and Intellectually Average Males (N=281) vide Table 3.3.2

Career Choices

The significant differences were found on social service which require top level management, technology, outdoor favoring gifted males and social service which require medium level of responsibility, organisation, general culture in favour of average males.
The hypothesis that gifted males prefer more of scientific, technical type of vocations which require top level management in comparison to their average counterparts got a partial support.

**Personality Factors**

The significant differences were found on factor C, V30 (lower ego strength vs. higher ego strength) and H, V35 (shy, socially bold) in favour of gifted males indicating higher ego strength and social boldness.

The hypothesis that gifted males are self-confident, reserved, highly intelligent, tender-minded, possess higher ego strength, controlled, enthusiastic, socially bold in comparison to their average male counterparts got a partial support only in case of high ego strength and social boldness.

**Family Environment**

The significant differences were found on expressiveness in favour of gifted males.

The hypothesis that the family environment of gifted males reflects more of cohesion, expressiveness, independence, organisation in comparison to their average male counterparts got a partial support, in case of expressiveness from among relationship dimensions.

**Comparison Between Intellectually Gifted Females (N=106) and Intellectually Average Females (N=225) vide table 3.3.3**

**Career choices**

The significant differences were found on social service, organisation and general culture in favour of average females and on outdoor activities in favour of gifted females.

The hypothesis that gifted females prefer more of scientific, artistic,
computational, social service type of vocations in comparison to their average female counterparts could not get any support.

Personality Factors

The significant differences were found on factor B i.e. intelligence in favour of gifted females and factor I (Harria vs. Premsia) in favour of average females.

The hypothesis that the gifted females are more controlled, intelligent, self-confident in comparison to their average female counterparts got a partial support, only in case of intelligence.

Family Environment

The significant differences were found on cohesion in favour of gifted females.

The hypothesis that there is more of cohesion, expressiveness, achievement orientation, independence and organisation in the families of gifted females in comparison to their average female counterparts got a partial support.

Within Group Comparisons

Comparison Between Intellectually Gifted males (N=88) and Intellectually Gifted Females (N=106)

Career Choices

The significant differences were found on technology in favour of gifted males and on general culture in favour of gifted females.

The hypothesis that the gifted males prefer scientific, technical type of vocations in comparison to females who prefer artistic, computational, social service type of occupations got a partial support.
Personality Factors

The significant differences were found on factor E (Submissiveness Vs. Dominance), factor I (Harria Vs. Premsia) in favour of gifted males and factor A (Affectothymia Vs. Sizothymia), factor B i.e. intelligence in favour of gifted females. This means gifted females are more intelligent and warm hearted in comparison to gifted males.

The hypothesis that the gifted males are self-confident, reserved, intelligent, tender-minded, possess higher ego strength, controlled, enthusiastic, socially bold in comparison to gifted females got a partial support only in case of factor I i.e. tender minded.

Family Environment

The significant differences were found on cohesion, conflict, achievement orientation, moral religious emphasis and organisation in favour of gifted females.

The hypothesis that the gifted males perceive more of cohesion, expressiveness, independence, achievement orientation in their families whereas the females perceive more of organisation, achievement orientation, control in their families got a partial support.

Comparison Between Intellectually Average Males (N=281) and Intellectually Average Females (N=225) Vide Table 3.3.5

Career Choices

The significant differences were found on organisation which require top level of management, outdoor activities, science in favour of average males and organisation which require medium level of responsibility, general culture, arts and entertainment in favour of average females.

The hypothesis that the average males prefer more of mechanical,
artistic, social service, business, scientific types of vocations in comparison to females could not get support in this analysis.

**Personality Factors**

The significant difference were found on factor A (Affectothymia Vs. Sizothymia) in favour of average females and factor B (V29) i.e. intelligence, C, V30 (Lower ego strength Vs. Higher ego strength), I, V36 (Harria Vs. premsia) in favour of average males.

The hypothesis that the average males are more realistic, casual, extrovert, self-rejecting, tender-minded, withdrawing in Comparison to females who are dominant, less realistic, self-confident, socially precise, shy got a partial support.

**Family Environment**

The significant difference were found on achievement orientation, intellectual cultural orientation, organisation in favour of average females and control in favour of average males.

The hypothesis that the average males have more of independence, achievement orientation, active-recreational orientation in their families in comparison to females who have more achievement orientation, organisation, control, moral-religious emphasis in their families got a maximum support.

**Subject-wise Comparisons**

**Comparison Between Intellectually Gifted Arts (N=29) and Intellectually Average Arts (N=205) Groups Vide Table 3.3.6**

**Career Choices**

The significant differences were found on technology, arts and entertainment in favour of gifted arts group and organisation in favour of
average arts group.

The hypothesis that the gifted arts group prefer technical, arts and entertainment, organisation type of vocations in comparison to their average arts group who prefer Social service, general culture, got a partial support.

**Personality Factors**

The significant differences were found on factor I (Harria Vs. Premsia) in favour of average arts group.

The hypothesis that the gifted arts students are more independent, self-confident, mature, anxious, highly-competitive, obedient, relaxed, tender-minded in comparison to average arts students got no support.

**Family Environment**

No significant differences were found on any of the variables of family environment.

The hypothesis that the gifted arts group perceive more of cohesion, expressiveness, independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation whereas in case of average arts group the family environment is characterised more by moral-religious emphasis, organisation and control got no support.

**Comparison Between Intellectually Gifted Science (N=115) and Intellectually Average Science (N=153) Groups (Vide table 3.3.7)**

**Career Choices.**

The significant differences were found on outdoor activities in favour of gifted science group.

The hypothesis that that gifted science group prefer technical, organisation, scientific type of vocations in comparison to average science
group who prefer Scientific, social work, general culture type of vocations got no support.

**Personality Factors**

No significant differences were found on any of the variables of personality between gifted and average science students.

The hypothesis that the gifted science students are more confident, emotionally stable, practical, independent, relaxed, obedient in comparison to their average science group counterparts got no support.

**Family Environment**

No significant differences were found on any of the dimensions of family environment.

The hypothesis that the gifted science group perceive more of cohesion, expressiveness, independence, achievement orientation, organisation in comparison to their average science group counterparts got no support.

**Comparison Between Intellectually Gifted Commerce (N=50) and Intellectually Average Commerce (N=148) Groups (Vide table 3.3.8)**

**Career Choices**

The significant differences were found on science, general culture in favour of gifted commerce group.

The hypothesis that gifted commerce group prefer more of technological, computational, mathematical type of vocations in comparison to their average commerce group counterparts got a partial support.

**Personality Factors**

The significant differences were found on factor J (Zeppia Vs.
Consthenia), Q2 (Group Dependency Vs. self-Sufficiency) in favour of gifted commerce group.

The hypothesis that the gifted commerce students are confident, resourceful, self-sufficient, reflective, tendermided, enthusiastic in comparison to their average commerce group counterparts got a partial support.

Family Environment

The significant differences were found on conflict and achievement orientation in favour of gifted commerce group.

The hypothesis that the gifted commerce group perceive more of cohesion, expressiveness, organisation, less of conflict, more of achievement orientation in their family in comparison to their average commerce group counterparts got a partial support.
## Overall Conclusions: Significant Differences On Variables Favouring Gifted Or Average Groups

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Groups/Variables</th>
<th>Career Choices</th>
<th>Personality Factors</th>
<th>Family Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Gifted Group</td>
<td>Technology Science, Arts and Entertainment Outdoor Social Service Organisation General Culture</td>
<td>Factor B i.e. intelligence Factor Q₂ (Group Dependency Vs. Self-Sufficiency) - - -</td>
<td>Cohesion Expressiveness</td>
</tr>
<tr>
<td></td>
<td>Average Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>Gifted Males</td>
<td>Social Service Technology Outdoor</td>
<td>Factor C (Lower ego strength Vs. Higher ego strength) Factor H (Shy, Socially bold)</td>
<td>Expressiveness</td>
</tr>
<tr>
<td></td>
<td>Average Males</td>
<td>Technology Outdoor Organisation General Culture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>Gifted Females</td>
<td>Outdoor Social Service Organisation General Culture</td>
<td>Factor B i.e. intelligence Factor I (Harita Vs. Premisia)</td>
<td>Cohesion</td>
</tr>
<tr>
<td></td>
<td>Average Females</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>Gifted Males</td>
<td>Technology</td>
<td>Factor E (Submissiveness Vs. Dominance) Factor I (Harita Vs. Premisia) Factor A (Affectothymia Vs. Sizothymia) Factor B i.e. intelligence</td>
<td>Cohesion, conflict Achievement orientation Moral-religious emphasis, organisation</td>
</tr>
<tr>
<td></td>
<td>Gifted Females</td>
<td>General Culture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Average Males</td>
<td>Organisation Outdoor Science</td>
<td>Factor B (Intelligence ) Factor C (Lower ego strength Vs. Higher Ego strength) Factor I (Harita Vs. Premisia) Factor A (Affectothymia Vs. sizothymia)</td>
<td>Control</td>
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<tr>
<td></td>
<td>Average Females</td>
<td>Organisation General Culture Arts and Entertainment</td>
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<td>Achievement orientation Intellectual-cultural orientation, organisation</td>
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<th>Personality Factors</th>
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<tr>
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<td>Gifted Arts</td>
<td>Technology Arts and Entertainment Organisation</td>
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<td>Factor I (Harria Vs. Premisia)</td>
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<td>VI</td>
<td>Average Arts</td>
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<td>-</td>
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<td>VII</td>
<td>Gifted Science</td>
<td>Outdoor</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VII</td>
<td>Average Science</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VIII</td>
<td>Gifted Commerce</td>
<td>Science General Culture</td>
<td>Factor J (Zeppia Vs. Consthenia) Factor Q2 (Group Dependency Vs. Self-sufficiency)</td>
<td>Conflict, Achievement orientation</td>
</tr>
<tr>
<td>VIII</td>
<td>Average Commerce</td>
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</tr>
</tbody>
</table>

Conclusions Based on Section IV Bi-variate Relationships: Correlational Analysis (Vide tables 3.4.1. through 3.4.12)

In order to study the relationship of intelligence and achievement with career choices, personality factors and family environment in case of gifted and average groups, the value of r's were obtained by employing the product moment method of correlation.

Relationship Between Intelligence and Career Choices (Vide table 3.4.1)

Intelligence was found to be correlated significantly with career choices in the area of technology \((r=.148)\) in case of gifted group.

Intelligence was found to be significantly correlated with career choices in the area of arts and entertainment \((V_{25}, r=.119 \text{ and } V_{27}, r=.100)\) in case of average group.

Non-significant relationship between most of variables of career choices and intelligence indicate that they are independent of one another.

The hypothesis of significant correlation between intelligence and career choices got a feeble support.
Relationship Between Intelligence and Personality Factors (Vide table 3.4.2)

Intelligence was found to be significantly correlated with personality factor E (Submissiveness Vs. Dominance) \((r=.164)\) in case of gifted group.

Intelligence was found to be significantly correlated with personality factor C (Lower ego strength Vs Higher ego strength) \((r=.107)\), D (Phlegmatic temperament Vs. Excitability \((r=.113)\), H (Threctia Vs. Parmia) \((r=.163)\) and I (Harria Vs premsia) \((r=.117)\) in case of average group.

The hypothesis of significant correlations between intelligence and personality factor was partially accepted in case of average group.

Relationship Between Intelligence and Family Environment (Vide table 3.4.3)

Intelligence was found to be significantly correlated with conflict \((r=-.126)\) and achievement orientation \((r=.114)\) from among family environment in case of gifted group.

The hypothesis of significant correlation of intelligence with family environment was partially accepted.

Relationship Between Achievement and Career Choices (Vide table 3.4.4)

Achievement was found to be significantly correlated with career choices in the area of outdoor activities \((r=-0.145)\) and arts and entertainment \((r=.096)\) in case of average group only.

The hypothesis of significant correlation of achievement with career choices could not be retained fully.

Relationship Between Achievement and Personality Factors (Vide table 3.4.5)

Achievement was found to be significantly correlated with the personality
factor B i.e. intelligence in case of gifted group (r=.307).

The coefficient of correlations between achievement and personality factors B i.e. intelligence (r=.104), H (Threctia Vs. Parmia) (r=.105), Q2 (Group dependency Vs. self-sufficiency) (r=.112), Q3 (Low self-sentiment integration vs. High strength of self-sentiment) (r=.100), Q4 (Low ergic tension vs. high ergic tension) (r=.089) and F (Desurgency vs. Surgency) (r=.115) in case of average group.

The hypothesis that there exist significant correlations of achievement with personality factors was partially accepted.

Relationship Between Achievement and Family Environment (Vide table 3.4.6)

Achievement was found to be significantly correlated with family environment dimensions cohesion (r=.174) and conflict (r=-.172) in case of gifted group.

The family environment dimensions cohesion (r=.101) and achievement orientation (r=.105) were found to be significantly correlated with achievement in case of average group.

The hypothesis of significant correlation of family environment with achievement was partially accepted.

Relationship Between Career Choices and Personality Factors of Intellectually Gifted Group (Vide table 3.4.7)

The personality factor C (Lower ego strength Vs Higher ego strength) was found to be correlated with social service (r = .218) and business contact (r = .147). The factor I (Harria Vs. Premsia) and factor Q4 (Low ergic tension Vs. high ergic tension) were found to be significantly correlated with organisation (r=-.140, r=.148) and arts and entertainment (r=.180, r=-.153).
The hypothesis of significant correlations between career choices and personality factors was only partially accepted.

**Relationship Between Career Choices and Personality Factors of Intellectually Average Group (Vide table 3.4.8)**

The personality factor B i.e. intelligence was found to be correlated with social service ($r = 0.126$), business contact ($r = 0.094$), organisation ($r = 0.116, 0.088$) Science ($r = 0.119, 0.182, 0.091$), arts and entertainment ($r = 0.100$).

The personality factor E (Submissiveness Vs. Dominance) was found to be significantly correlated with social service ($r = -0.109$), business contact ($r = -0.120$), organisation ($r = -0.100, -0.148$), outdoor ($r = -0.100$) and science ($r = -0.098$).

The personality factor Q2 (Group dependency Vs self-sufficiency) was found to be significantly correlated with business contact ($r = -0.127$), organisation ($r = -0.112, -0.101$), technology ($r = -0.100$), science ($r = -0.130, -0.105$) general culture ($r = 0.116$).

The personality factor Q3 (Low self-sentiment Vs. High strength of self-sentiment) was found to be significantly correlated with technology ($r = 0.150$), outdoor ($r = 0.133$) and science ($r = 0.133, 0.115, 0.129$).

Four out of 14 personality factors have been found to be correlated significantly with many variables of career choices.

The hypothesis of significant correlations between career choices and personality factors in case of average group was accepted.

The common pattern of relationship of career choices with personality factors in case of gifted and average groups are as below:

| Organisation with factor Q2 (Group dependency Vs. Self-sufficiency), | Science with factor B i.e. intelligence, E (submissiveness Vs. Dominance) and Q3 (Low self-sentiment integration Vs. Higher strength of self-sentiment). |

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Relationship Between Career choices and Family Environment of Intellectually Gifted Group (Vide table 3.4.9)

The variable of achievement orientation from among family environment was found to be significantly correlated with social service ($r=.141, .148$), organisation ($r=.139$), science ($r=.237$), arts and entertainment ($r=.138$).

The variables of social service were significantly correlated with intellectual cultural orientation ($r=.149$), moral-religious emphasis ($r=.147$), organisation ($r=.220$) and control ($r=-.150$).

The hypothesis of significant correlations of career choices and family environment was accepted partially in case of gifted group.

Relationship Between Career Choices and Family Environment of Intellectually Average Group (vide table 3.4.10)

The variables of arts and entertainment type of vocations were significantly correlated with cohesion ($r=.107, .130$), conflict ($r=-.105, -.111$), intellectual-cultural orientation ($r=.114, .121$), moral-religious emphasis ($r=.106, .140, .103$) and control ($r=-.138, -.134$).

The variable of achievement orientation from among family environment was found to be significantly correlated with social service ($r=.130$), business contact ($r=.104$), organisation ($r=.123$), technology ($r=.120$), outdoor ($r=.124$), science ($re=.119$) type of vocations.

The hypothesis of significant correlations of career choices with family environment dimensions was accepted partially.

The common pattern of relationship of career choices with family environment dimensions in case of gifted and average groups were as follows:

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Relationship Between Personality Factors and Family Environment of Intellectually Gifted Group (vide table 3.4.11)

The variable of conflict from among family environment was found to be correlated with personality factor B i.e. intelligence (r=.189) and I (Harria vs. Premsia) i.e. tender-minded, toughminded, dependent (r=.169).

The intellectual-cultural orientation contributed for factor C (submissiveness Vs. Dominance) (r=.220), G (Weaker Superego strength Vs. stronger superego strength) (r=.156), H (Threctia Vs. Parmia) i.e. Shy, socially bold (r=.252), I (Harria Vs. Premsia) sensitive, dependent (r=.145) and O (untroubled adequacy Vs. Guilt proneness) i.e. Secure, troubled, worrying (r=-.193). The independent (r=.142), organised (r=.155) and active-recreational oriented (r=.206) families contributed for factor C (submissiveness vs. Dominance).

The hypothesis of significant correlations of personality factors and family environment dimensions was accepted partially.

Relationship Between Personality Factors and Family Environment of Intellectually Average Group (Vide table 3.4.12)

The results indicated that conflict is associated with factor A (Affectothymia Vs. Sizothymia) (r=-.115) i.e. reserved, warmhearted, outgoing, C (Lower ego strength vs. Higher ego strength) (r=-.132) type of personalities. The achievement oriented families contributes for personality factor B i.e. intelligence (r=.123), D (phlegmatic temperament Vs. Excitability) (r=.117), E (Submissiveness Vs. Dominance) (r=-.111), I (Harria Vs. Premsia) (r=.147) i.e.
sensitive, tough-minded, dependent, J (Zeppia vs. Consthenia) (r= -1.124) i.e. zestful, reflective. The intellectual-cultural oriented and organised families contributed for factor G (weaker superego strength Vs. Higher ego strength) (r= .129).

The hypothesis of significant correlations of personality factors and family environment was accepted partially.

The common pattern of relationship of personality factors and family environment dimensions in case of gifted and average groups were as follows:

| Personality factor B i.e. intelligence with achievement orientation. |
| Factor G (Weaker superego strength vs. stronger superego strength) with intellectual-cultural orientation |
| Factor I (Harria Vs. Premsia) with intellectual-cultural orientation |

Conclusions Based on Section V: Factorial Analysis (Vide tables 3.5.1 through 3.5.23)

In order to find out which variables share commonality of variance with others and which variables constellate together, factor analysis was employed.

The results of factor I through factor XIX showed that most of the factors were found to be pure and exclusive. Only some dimensions of two variables out of three variables i.e. career choices, personality factors and family environment constellated together under a particular canopy of factor.

In factor XI, few dimensions from each variable i.e. from among career choices business contact, organisation, from personality factors only factor I (Harria Vs. Premsia) and from family environment only expressiveness have occurred together. That means in business and organisation type of vocations people with personality traits like tough-mindedness and family environment of expressiveness are essential features.
Similarly in factor XII, few dimensions of career choices i.e. social service along with personality factor J (Zeppia Vs. Consthenia) and independence from family environment have clustered together.

That means in social service type of vocations the personality traits like zestfulness and independence from family environment dimensions have a lot to share with one another.

The hypothesis that some dimensions of each of these variables i.e. career choices, personality factors and family environment constellate together under a particular canopy of factor was proved in factor XI and XII in case of intellectually gifted group only.

Suggestions for Further Research

In any field, the researcher's perception of needed research is a function first of his/her knowledge of the field and second of the extent to which his/her curiosity is broad and deep. From the wide-ranging review and reflections included as also the present research, following suggestions for future research have been distilled:

1. Different grades and age groups may be taken into consideration for comparing the effect of different variables on giftedness.
2. This can be taken up in the form of a longitudinal study for the same students to trace the course and strength of career choices.
3. Instead of taking the global achievement scores, marks in different subjects can be taken up for study.
4. Studies of proposal and moral behaviour, emotional development, and interpersonal intimacy of talented and not so identified are non-existent, therefore needed.
5. There is a definite need for more widely based study of the gifted population to uncover descriptive information on them. Samples of varied
socio-economic levels of differing ethnic groups, and of the disadvantaged be included. Duplicative research may be carried out to validate findings.

6. There is paucity of empirical research testing those theories that help understanding the gifted/talented. Therefore, most pressing need in the field of identification and nurture of the academically talented is for research that is clearly linked to theoretical underpinnings.