CHAPTER V

SUMMARY, CONCLUSIONS AND SUGGESTIONS
Welfare and prosperity of a nation depends on its natural and human resources. Human resource is perhaps more important than the natural resources because the latter can only be exploited if the former is efficient. Thus, human resource is of paramount importance for progress of a country. Professional courses like Engineering (B.Sc. Engg.), Teaching (B.Ed.), Law (LL.B.), Business Administration (M.B.A.) and Medical (M.B.B.S.) are organised for development of human resource. The nation spends large amounts of money for this purpose. It is estimated that the per capita per year expenditure on Engineering student alone is ₹ 3226.70. It has also been found that there is large scale failure and poor achievement in most of the professional courses. Thus, huge amounts of money go down the drain in the organisation of the professional courses.

The above mentioned wastage is mainly due to improper selection of students for admission to these courses. Therefore, it is imperative that only those students should be admitted to these courses who are...
likely to succeed in these courses and the related professions.

Success of the students in any course depends on his cognitive and personality characteristics and environmental variables. A review of previous researches has shown that some attempts have already been made to identify the cognitive characteristics of successful students in different professional courses. (Deva, 1966; Mathur, 1967; Sharma, 1971; Kumaraiah, 1976; Patil, 1984 and Kazmi, 1986). It has also been observed that inspite of having intellectual capabilities the students are unable to achieve upto the mark. It indicates that there are other variables in addition to intelligence which determine achievement in academic and professional courses. Personality characteristics may be considered important in this connection. It may push up students with low ability to a higher level. Few attempts have also been made to identify the personality characteristics of over-achievers in professional courses. Some of the attempts made in this regard are: Burgess, 1953; Mishra, 1963; Pal 1969; Kaul, 1973; Arora, 1981; Maxwell, 1983; Pervin, 1984; Mishra, 1988 and Vyas, 1987.

A perusal of these studies reveals that these investigators have restricted to only isolated personality characteristics (Mishra, 1962; Walsh and Palmer) and limited number of
professional courses (Burgess, 1953; Kaul 1973 and Pervin, 1984). Therefore, there is a need to undertake a comprehensive study involving all the personality characteristics and most of the professional courses. The present study, therefore, seeks to identify the personality characteristics of over and under-achievers in different professional courses viz., Engineering (B.Sc. Engg.), Teaching (B.Ed.), Law (LL.B.), Master of Business Administration (M.B.A.) and Bachelor of Medicine and Surgery (M.B.B.S.).

5.1 **Objective of the Study**:

In specific terms present study seek to:

1) identify over and under-achievers. Engineering (B.Sc. Engg.), Teaching (B.Ed.), Law (LL.B.), Business Administration (M.B.A.) and Medical (M.B.B.S.).

2) draw personality profiles of over-achievers in the above mentioned courses.

3) draw personality profiles of under-achievers in the above mentioned courses.

4) compare the personality patterns of over and under-achievers in each of the aforementioned professional courses.

5) Compare the personality patterns of over-achievers in the above mentioned five professional courses.
6) give suggestions regarding selection of the candidates for admission in these courses.

5.2 Hypotheses of the Study:

The common tendency of researchers in education is to present the hypothesis in null form. The present investigator is of the view that a null hypothesis is essentially a statistical technique and is applicable only on certain data which are amendable to some inferential statistics. Thus, it is not suitable as a hypothesis for educational research. Research hypothesis should be stated explicitly and exhibit clarity of thought of the researcher and the position he/she takes regarding the tentative conclusions of the research. The investigator has, therefore, formulated the hypotheses in directional form based on previous research and theoretical rationale. These hypotheses are:

1) The over-achievers in Engineering (B.Sc. Engg.) professional courses are likely to be serious, reserved, impulsive, venturesome, confident, dominant, expedient, suspicious, experimenting, harsh, obstructive and persevering.

2) The over-achievers in Teaching (B.Ed.) professional courses are likely to be lively, reserved, impulsive, venturesome, confident, dominant,
conscientious, trusting, conservative, harsh, cooperative and persevering.

3) The over-achievers in Law (LL.B.) courses are likely to be serious, reserved, impulsive, venturesome, confident, dominant, expedient, suspicious, conservative, harsh, obstructive and persevering.

4) Over-achievers in Business Administration (M.B.A.) are likely to be lively, sociable, impulsive, venturesome, confident, dominant, expedient, suspicious, experimenting, harsh, obstructive and fickle-minded.

5) Over-achievers in Medical (M.B.B.S.) professional courses are likely to be serious, reserved, stable, venturesome, confident, submissive, expedient, trusting, experimenting, kind, cooperative and persevering.

5.3 Method:

The present study proposes to identify the personality characteristics of over- and under-achievers in different professional courses viz., Engineering (B.Sc. Engg.), Teaching (B.Ed.), Law (LL.B.), Business Administration (M.B.A.), and Medical (M.B.B.S.). The over and under-achievers in all the five professional courses under study were identified with the help of procedure suggested by Thorndike (1963). In this procedure
regression equation for relationship between intelligence and achievement is computed. This equation helps to predict achievement on the basis of intelligence. After obtaining the predicted achievement scores discrepancies between the actual and predicted achievement scores are calculated. If the predicted achievement of a person was one SDe (standard error of estimate) above the actual achievement score, he was designated as over-achievers. On the other hand whose actual achievement was one SDe (standard error of estimate) below the predicted achievement achievement were called under-achievers. In this way, over and under-achievers in different professional courses were identified. A personality inventory based on factor analyses technique constructed by the investigator as a part of her M.Phil. research was administered to identify the personality characteristics of over and under-achievers in the above mentioned professional courses. Personality profiles of over and under-achievers were constructed on the basis of the scores obtained by under and over-achievers in these courses.

5.4 Sample:

The present study was conducted on a representative sample of 532 (242 over-achievers and 290 under-achievers) students studying in different professional
courses viz., Engineering (B.Sc. Engg.), Teaching (B.Ed.), Law (LL.B.), Business Administration (M.B.A.) and Medical (M.B.B.S.).

5.5 Tools:

The following measures were employed in the present study:

5.5.1 Measure of Intelligence:

Intelligence scores were obtained by the help of 'Culture Fair' test of general ability constructed by Cattell and Cattell (test of 'g' Culture Fair, Scale 2 Form A). This test was preferred over others because it is free from the influence of verbal ability and culture. It can also be easily administered.

5.5.2 Measure of Achievement:

The present study employed final examination marks which are a total of sessional, theory and practical examination marks as measure of achievement. The measure was considered fairly valid because it is a composite of several components and is continuously evaluated by several learned and experienced teachers who are well acquainted with the subjects.

5.5.3 Measure of Personality:

A personality inventory constructed by the present
investigator as a part of her M.Phil. work was employed as a measure of personality. It has been developed through a scientific and objective technique of factor analysis. It was found to be very reliable and valid.

5.6 Conclusions:

The study leads to the following conclusions:

5.6.1 Personality Characteristics of Over-achievers in different Professional courses:

1) **Engineering**: serious, reserved, impulsive, venturesome, confident, dominant, expedient, suspicious, experimenting, harsh, obstructive and persevering.

2) **Teaching**: lively, reserved, impulsive, venturesome, confident, dominant, conscientious, trusting, conservative, harsh, cooperative and persevering.

3) **Law**: serious, reserved, impulsive, venturesome, confident, expedient, suspicious, conservative, harsh, obstructive and persevering.

4) **Business Administration**: lively, sociable, impulsive, venturesome, confident, dominant, expedient, suspicious, experimenting, harsh, obstructive and fickle-minded.

5) **Medical**: serious, reserved, stable, venturesome, confident, submissive, expedient, trusting, experimenting, kind, cooperative and persevering.
5.6.2 **Personality Characteristics of Under-achievers in different Professional Courses**:

1) **Engineering** : lively, sociable, stable, shy, nervous, submissive, conscientious, trusting, conservative, kind cooperative and fickle-minded.

2) **Teaching** : serious, sociable, stable, shy, nervous, submissive, expedient, suspicious, experimenting, kind, obstructive and fickle-minded.

3) **Law** : lively, sociable, stable, shy, nervous, submissive, conscientious, trusting, experimenting, kind, cooperative and fickle-minded.

4) **Business Administration** : serious, reserved, stable, shy, nervous, submissive, conscientious, trusting, conservative, kind, cooperative and persevering.

5) **Medical** : lively, sociable, impulsive, shy, nervous, dominant, conscientious, suspicious, conservative, harsh obstructive and fickle-minded.

5.6.3 **Comparisons of Personality Characteristics of Over-achievers in the Professional Courses**:

**Factor I Lively-Serious**:

Over-achievers in Business Administration professional course are most lively in comparison to all other professional courses. Over-achievers in teaching are less lively than over-achievers in Business Administration
professional course. Over-achievers in Engineering, Law and Medical courses cluster around more or less the same level on the low score pole of this continuum i.e. serious.

**Factor II Sociable-Reserved**:  
Over-achievers in M.B.A. professional courses are most sociable. Over-achievers in Medical, Engineering, Law and Teaching professional courses are found to be reserved.

**Factor III Impulsive-Stable**:  
Over-achievers in Engineering professional courses are most impulsive. Over-achievers in Business Administration, Law and Teaching are also found to be impulsive but less than over-achievers in Engineering courses. Over-achievers in Medical courses are stable.

**Factor IV Venturesome-Shy**:  
Over-achievers in all the professional courses are venturesome.

**Factor V Confident-Nervous**:  
Over-achievers in all the professional courses are confident.

**Factor VI Dominant-Submissive**:  
Over-achievers in Engineering, Law and Business
Administration are very dominant. Over-achievers in Teaching professional courses are also found to be dominant but not to that extent. Over-achievers in Medical professional courses are found to be submissive.

**Factor VII Conscientious-Expedient:**

Over-achievers in teaching professional courses are conscientious. Over-achievers in Engineering, Law, Business Administration and Medical professional courses are found to be expedient.

**Factor VIII Trusting-Suspicious:**

Over-achievers in Teaching and Medical professional courses are found to be trusting. Over-achievers in Engineering, Law and Business Administration are of suspicious nature.

**Factor IX Conservative-Experimenting:**

Over-achievers in Teaching and Law professional courses are conservative. Over-achievers in Engineering, Business Administration and Medical professional courses are found to be experimenting.

**Factor X Kind-Harsh:**

Over-achievers in all the professional courses except Medical courses are found to be harsh.
Factor XI Cooperative-Obstructive:

Over-achievers in Medical and Teaching courses are cooperative. The mean scores of over-achievers in Engineering, Law and Business Administration cluster around the low scoring pole of this dimensions.

Factor XII Persevering-Fickle-minded:

Over-achievers in all the professional courses except in Business Administration are found to be persevering.

5.7 Suggestions and Implications:

Most of the tools employed for selecting students to professional courses include cognitive measures only. The selection interview has also a high loading of cognitive factors. Cognitive factors determine what a person will be able to do but what a person will actually do depends on the personality factors. The present research has identified personality characteristics of over-achievers in different professional courses. If this measure is also incorporated in the battery of selection, it may help perhaps more effectively to identify persons who are likely to succeed in their respective professions.

The present study reveals that there are some personality dimensions which characterize successful person in all
the professional courses for example, confidence and venturesomeness.

There are some personality characteristics which are present in the over-achievers in most of the professional courses. Such personality characteristics and the courses are given below:

<table>
<thead>
<tr>
<th>Personality characteristics</th>
<th>Professional Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Reservedness</td>
<td>Engineering, Teaching, Law and Medical.</td>
</tr>
<tr>
<td>b) Impulsiveness</td>
<td>Engineering, Teaching, Law and Business Administration.</td>
</tr>
<tr>
<td>c) Dominance</td>
<td>Engineering, Teaching, Law and Business Administration.</td>
</tr>
<tr>
<td>d) Expediency</td>
<td>Engineering, Law, Business Administration and Medical.</td>
</tr>
<tr>
<td>e) Harshness</td>
<td>Engineering, Teaching, Law and Business Administration.</td>
</tr>
<tr>
<td>f) Perseverance</td>
<td>Engineering, Teaching, Law and Medical.</td>
</tr>
</tbody>
</table>

There are also some personality characteristics which are specific for the over-achievers in some particular courses. Such personality characteristics and courses for which they are specific are given below:
<table>
<thead>
<tr>
<th>Personality characteristics</th>
<th>Professional Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Conscientiousness</td>
<td>Teaching</td>
</tr>
<tr>
<td>b) Sociability and Fickle-mindedness</td>
<td>Business Administration</td>
</tr>
<tr>
<td>c) Stability, Submissiveness and kindness</td>
<td>Medical</td>
</tr>
</tbody>
</table>

5.8 **Suggestions for Further Research**:

(1) The present study has identified the over- and under-achievers on the basis of procedure suggested by Thorndike (1963). This is essentially a technique for controlling the effect of intelligence. Variables other than intelligence like study habits, achievement motivation and environmental variables also affect achievement. Therefore, for identifying personality characteristics of over- and under-achievers the above mentioned variables should have been included as control variables. A design incorporating all these variables as control variables would have become very complex and could not be undertaken because of paucity of time and resources available to the present investigator.

A comprehensive research project involving these control variables may be undertaken for more dependable results.
(2) The measure of achievement employed in the present study are students' achievement scores at the final theory and practical examination. Such measures are notorious for their subjectivity. The present investigator is also of the view that standardized theory and practical tests would have served better. Construction of standardized test for theory as well as practical examination would have been a colossal task beyond the resources available to the investigator. Since the final examination theory and practical marks in all the professional courses are the contribution of many learned and experienced teachers and are awarded during the academic session at different levels at different intervals therefore, they are likely to be fairly valid measures and thus suitable for a research study. It is suggested that a comprehensive research project may be designed in which standardized achievement test may be used for identifying over- and under-achievers.

(3) The sample of the study includes students studying in five professional courses (Engineering, Teaching, Law, Business Administration and Medical) of Aligarh Muslim University. The conclusions arrived at are applicable to similar situations only. Since A.M.U. caters students from the whole country and the syllabi can also be favourably compared with those of other universities, it may, therefore, be safely assumed that the conclusions of the
The present research are applicable to students studying in other universities. For more dependable results a representative sample comprising of students from different regions may be taken.

(4) The present study has employed five professional courses (Engineering, Teaching, Law, Business Administration & Medical). Personality characteristics of students in other professional courses like veterinary and Agriculture may also be explored.

(5) The present study has employed the personality inventory constructed by the investigator as a part of her M.Phil. course. This inventory is fairly comprehensive, valid and reliable. It has been constructed on the basis of factor analysis technique. However, the previous researches have shown that some personality variables like perseverance, achievement motivation, level of aspiration etc. appear very promising for predicting success. While the personality characteristic perseverance is a component of the personality inventory employed in the present study, measures of achievement motivation, level of aspiration should be incorporated in future research design. It is also suggested that more comprehensive measure of perseverance should be constructed and its predictive validity be explored.
The investigator is conscious of the various shortcomings and defects of the present study, but it is being submitted with the hope that it will motivate others to take up further research in the area which has not been sufficiently explored.