6.1 SUMMARY

6.1.1. Objectives

Achievement, on which much of successful living depends, is admittedly determined by a large number of factors. Hundreds of studies have been conducted to assess and ascertain the extent to which such factors separately and/or conjointly contribute towards achievement. Educationists and psychologists are still at a variance in regard to identification of the role of all the variables which could explain the complex phenomenon of achievement in its entirety. Some of the factors which have been found in different researches to be important contributors to achievement in various spheres of life appear to be intelligence, personality, previous achievements, interests, and the like. These variables are mainly of two categories, namely, cognitive and affective. Each of these factors has its specific role in determining the nature and extent of achievement. Out of the various affective factors, the present study aims to concentrate on personality and interest.

The main objective of the study was to find out if there was any difference in the personality and interest patterns of different categories of academic achievers who were divided into four groups according to the trends of performance, namely, progressive,
regressive, stable and fluctuating; and also to study the difference, if any, in personality and interests in each of the above four groups between males and females.

6.1.2 The variables:

**Achievement:**

Academic achievement was considered to be the basis on which all the sample subjects were classified into four groups showing four clear and specific patterns of performance. The percentage of total scores in all the compulsory subjects in the four consecutive terminal examinations, namely, Madhyamik, (School Final), Uchchamadhyamik (Higher Secondary), Degree with honours, and Post-Graduate, which form the basis for admission to subsequent higher courses of study and which are also normally accepted as a criterion for selection to jobs in the prevailing system was accepted as the measure for academic achievement in this study.

Since, for all practical purposes of higher studies, selection and recruitment to jobs and other awards, the grades scored by individuals in these examinations conducted by the statutory bodies are accepted as the prime criterion there is perhaps no dispute regarding this standard measurement of scholastic achievement.

**Personality:**

Cattell's Sixteen Personality Factor Questionnaire (From-A) has
been used to identify the personality characteristics of the sample subjects. Though this objectively scorable test gives a complete coverage of personality, in order to get a relative view of the sixteen personality factors, the work has been done with only four broader second order factors consisting of the following well known dimensions:

1) Adjustment Vs. Anxiety
11) Introversion Vs. Extraversion
111) Tenderminded Emotionality Vs. Alert Poise
and 1IV) Subduedness Vs. Independence.

Second order scores have been derived not from the raw scores from the primaries but from the Stens into which the former have first been converted according to the procedure suggested by the authors. Means and standard deviations of sten scores were also calculated on each factor for identification of personality of each specific achievement group.

Interest:

For the purpose of identification of prime interests of achievement groups Kuder General Interest Survey (Form E) has been used in this study. It provides ten relatively independent interest categories namely, outdoor, mechanical, occupational, scientific, persuasive, artistic, literary, musical, social service and clerical. Before profiling the results, the scores were converted into six
RIASEC (realistic, investigative, artistic, social, enterprising and conventional) personality types as per instruction in the Manual. These six interest characteristics are present in all individuals in more or less different dimensions but the three highest scores have been accepted, as suggested by the author, as most dominating patterns that prevail in an individual.

6.1.3 Hypotheses:

General: (a) the four achievement groups will differ significantly in respect of their personality and interest patterns.

(b) There is no male-female difference in the personality and interest patterns.

Specific: Specific hypotheses have been given in every detail in Chapter IV.

6.1.4 Sample

Sample comprised 240 (120 male and 120 female) students divided equally into four groups as mentioned in 6.1.2 under the title 'Achievement'. The sample was drawn after careful screening on the basis of public examination marks in the respective terminals. All the students had studied under the West Bengal Board of Secondary
Education, Higher Secondary Council, West Bengal and the Calcutta University. They were all studying in different teacher training colleges in Calcutta under the Calcutta University.

6.1.5 Data Collection:

For the purpose of analysis of personality and interest patterns, data were the percentage of marks scored by sample students at four terminal examinations of Madhyamik, Uchchamadhamik, Honours and Masters degrees of the University of Calcutta. These scores were obtained from the official mark sheets recorded in official registers of selected institutions where the sample subjects were studying B.Ed. Course under the University of Calcutta. Seven such Colleges, two for boys only, two of girls only, and three co-educational, were selected for the purpose of ironing out differences in arrangements and facilities, if any, for sex variation. Examination results of 550 students, 305 boys and 245 girls, were collected initially from which 400 scores were selected. Of these 400 scores, 200 for boys and 200 for girls, 240 were selected for analysis. These scores reflected clear and definite trends of progression, regression, fluctuation and stability in subsequent examinations. Data were collected on personality and interest patterns by directly administering Cattell's 16-PF questionnaire and Kuder's General Interest Survey after thorough discussion and explanation of the directions for answering the questions in right manner. The investigator herself took two days (one day for each questionnaire) for every college group of students.
and guided the subjects in expressing their preferences in an objective manner. Hence, the information collected under the direct supervision and direction of the present investigator were free from external influence, personal bias and confusion to a considerable extent and accepted as suitable for factor analysis as directed in the manuals.

6.1.6. Results:

The data for the study were collected from a sample of 240 students of the four groups of achievers, namely, progressive, regressive, stable and fluctuating. It is found that the female subjects have maintained a higher average of scores as a measure of achievement in all the examinations and the standard deviation of scores shows some degree of sex variations in different groups.

In personality factor - I i.e. anxiety scores, progressive, regressive and fluctuating groups show more anxiety than stable groups which is very natural. The progressive group has lower mean scores as well as standard deviation indicating their commitment to purpose.

The progressive group is found to be more introvert than other groups though fluctuating group of female achievers show the same characteristic.

The progressive achievers are found to be more alert and enterprising than students having regressive and stable performance
but a very interesting finding here is that the fluctuating achievers are also high on this characteristic. This is perhaps due to their inclination towards risky ventures and adoption of rapid action with insufficient consideration and thought of the outcome which results in uncertain achievement. The standard deviation is also less for this group of students showing a small range of variability of achievement due perhaps to neutralisation of positive and negative results to a certain extent.

The progressive group shows more independence and aggressiveness than other groups whereas the regressive group is group-dependent, being passive in personality and dependent on support of others for their success or failure. The stable group has a considerable independence in decision making with scores in the close neighbourhood of average. The females in the fluctuating group have scores below average, as is natural for them to be dependent on others for all sorts of activities being supported by other members of the family. They are passive in personality.

In the sphere of interest the results of investigation show that progressive students have high investigative interest whereas regressive achievers are very low in this area. Fluctuating performers also have high investigative interest.

Interestingly, the scores reflect that progressive and stable achievers have very low artistic interest meaning thereby that they
prefer cautious steps on the beaten tracks. Regressive and fluctuating results may be a reason for high artistic interest involving risk and uncertainty of outcome though creativity and independence mark these activities.

Progressive and stable achievers reflect very little social involvement in their life style whereas regressive students have very high social interest which may be a cause of their declining performance.

6.2 CONCLUSIONS

6.2.1. Sex difference:

It is found that there is no significant difference between males and females in their personality characteristics except in the case of fluctuating group. This slight variation in introversion-extroversion and subduedness-independence characters may be the result of external influence like social system and availability of facilities for the two sexes.

In interest patterns also sex difference is not very significant. Fluctuating group of males are found to be more realistic whereas males with stable performance show more investigative interest than females. The standard deviation of scores in fluctuating females is much less than males regarding artistic interests indicating thereby cohesiveness of female character in this
particular kind of creative interest. Progressive females are found to be more social whereas stable females show less social interest than their male counterparts.

There is a marked difference in enterprising interest of male and female achievers of the fluctuating group--males are more enterprising than females. Also, males are found to be more enterprising than females in the regressive group with a marked sex difference in the standard deviation of scores for these two groups.

The progressive females are more conventional whereas fluctuating males show the same characteristics.

Fluctuating achievers have average social interest. Involvement in the cause of others and sympathy for them may cause wide fluctuations in performance due to anxiety and external influence.

Progressive achievers are found to possess enterprising interest of a very high degree and this pattern is also found in the characters of stable achievers. Regressive performers are naturally very poor in enterprising quality, and fluctuating ones depict the same propensity.

The scores of regressive and stable achievers show that they are highly conventional meaning thereby less adjustibility and acceptance of new ideas and technology. The progressive and fluctuating performers are less conventional. This is perhaps due to
enterprising character and keenness to accept new things to make a career.

6.2.2 Results of ANOVA:

The four personality factors do not show any notable difference as a whole but different achievement groups differ significantly in their personality characteristics—indicating the important role personality plays in bringing success or failure to an individual. There was no significant difference with respect to achievement and personality when two sexes were considered separately. The interaction of personality, achievement and sex reflects no significant difference.

Though the personality patterns do not reflect any significant variation, the interest patterns show significant difference between groups of achievers indicating the very important role interest plays in bringing in positive or negative achievement for different individuals. Thus, interest is established as a good predictor of success. There is also significant difference between interest and sex, as well as between interest, sex and achievement. This difference in interaction may be taken as a pointer to the role of personality and stronger role of interests in modifying achievement of individuals and for two sex groups also.

6.2.3 Univariate comparison:

There is no significant sex difference between different
achievement groups regarding personality factors. But the difference between groups is very significant for almost all personality factors which indicates that by changing personality, achievements can be varied to a considerable extent.

In case of interests, male-female variations of a significant degree are noted with respect to realistic interest. But between achievement groups, very significant differences are found between stable and fluctuating groups regarding realistic and investigative sets of mind. Social interests influence progressiveness, regressiveness and stability of achievement to a considerable extent. Enterprising and conventional interests also cause fluctuations and at times regression in performance.

Hence, it is found that like personality factors, interest patterns also affect performance of different groups of achievers to a considerable degree and so by measured and timely intervention at proper stage to develop interest in different areas, some advancement may be effected in achieving desired results.
### 6.1.1 DOMINANT PERSONALITY AND INTEREST PATTERNS OF DIFFERENT ACHIEVEMENT GROUPS

<table>
<thead>
<tr>
<th>Achievement Group</th>
<th>Personality Characteristics</th>
<th>Dominant Interest Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Progressive</strong></td>
<td>Normal but slightly high anxiety; little shy, self sufficient and inhibited in interpersonal contacts</td>
<td>Realistic, enterprising and investigative</td>
</tr>
<tr>
<td></td>
<td>enterprising to some extent, prudent, decisive and resilient</td>
<td>Prefers works with real things, machines, tools etc. and interested in rewards</td>
</tr>
<tr>
<td></td>
<td>aggressive, independent and daring personality with initiative.</td>
<td></td>
</tr>
<tr>
<td><strong>Regressive</strong></td>
<td>High anxiety due to maladjustment; socially outgoing; good at making and maintaining interpersonal contacts; troubled by pervasive emotionally, discouraged type, slightly frustrated; group dependent, chastened, passive personality.</td>
<td>Artistic, social and conventional interested in creativity and originality, and in works having social acceptance and implications in the traditional system.</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
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<td>------</td>
<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Stable</td>
<td>Satisfying life and lack of motivation to some extent; venturesome, socially bold, uninhibited and spontaneous; little artistic and gentle, sensitive to subtleties of life; normally tolerant having some initiative.</td>
<td>Realistic, enterprising and conventional cautious about real outcome, more comfortable in a team and interested in results.</td>
</tr>
<tr>
<td></td>
<td>Dissatisfaction and maladjustment with demands of life.</td>
<td>Artistic, investigative and social.</td>
</tr>
<tr>
<td>Fluctuating</td>
<td>slightly reserved, detached and cool, introvert.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>slightly enterprising, decisive, self-reliant; females are more prudent and self-sufficient, group adherent, chastened and a sound follower.</td>
<td></td>
</tr>
</tbody>
</table>
Extreme fluctuations are not noticed due perhaps to the fact that all the students under study have a minimum standard of performance in all the examinations. Scores below 40% in any examination have not been considered. Moreover, all of them have opted for a specific course of study, namely, B.ED. which indicates their common vocational interest.

Significant differences in personality and interest have been identified between two normally opposite groups of students, namely, progressive and regressive, whereas in stable and fluctuating groups opposing tendencies have worked upon each other to iron out the differences to a considerable extent.

6.3 LIMITATIONS OF THE STUDY

Although the study was undertaken to investigate into the personality structure and interest pattern of students in general, the sample was drawn from the population of B.ED. students only who may be considered to have expressed their preference for a particular type of profession, namely teaching. The results of the study could have been more general had it covered students from other streams or areas of professional specification.

In considering the results of four examinations with different subject combinations the overall performance has been accepted as standard achievement of individuals. Perhaps the performance could be more specific and satisfactorily comparable if the scores of common subject or subjects were considered instead of the percentage of
total Scores for all subjects in subsequent examinations. But it was not possible due to practical difficulties in getting subjects isolated from the curriculum in studying specific efforts or interests in different examinations.

Moreover, the period covered from Madhyamik to Post graduate examination is pretty long to influence a student in growing personality or interest. The overall performance has been affected by experience, future career expectations and other dynamic factors working jointly which could not be eliminated or isolated in considering the personality or interest patterns of different achievement groups. But this limiting condition of ceteris paribus or other things remaining unchanged is present in all studies relating to social behaviour.

Further, the seven colleges selected for drawing sample subjects are situated in or around Calcutta. The students belong to an urban or sub-urban setting which is different from the psychology of a rural environment and which reflects, whatever the extent, a specific bias in personality and interests.

Instead of sixteen general personality factors, only four broader and less specific traits - anxiety, extraversion, alert poise and independence have been considered. Similarly, interest patterns of six RIASEC personality types instead of ten interest groups have been considered to get intensive information about occupations. But it has always been kept in mind that the derivation of the sten
values by converting raw scores of sixteen personality factors by standardisation tables is practised worldwide consistent with best modern usage aiming at a good but not unrealistically refined degree of accuracy in expression of results.

The investigator is aware of all these limitations of the present study which can be removed to some extent in further studies.

6.4 SUGGESTIONS FOR FUTURE STUDIES

The present study helped the investigator to have some insight and understanding of the personality structure and interest patterns of students who have progressive, regressive, stable and fluctuating trends of results as reflected in four successive terminal and standardised examinations at adolescent and preadult age. On the basis of the results of the study some suggestions for further investigation may be made.

The study was made with students from B.Ed colleges only; it can be repeated with samples from more colleges and institutions administering different specific and specialised courses like commerce, arts, science, medical, engineering and so on. This will result in more exact and accurate reflections and correct adjustment of interest and personality because of gradual elimination of subjects which students reject as second choice as against intensification of effort, energy and achievement motivation on first preference.
The study can be extended to sixteen personality factors and ten interest patterns to compare the results with four Second Order and six RLASEC factors. This can also give further insight into more factors that affect in isolation.

The study can be continued with more case studies to test the reliability and validity of the qualitative measures.

There is scope for intensive study of the personality and interest pattern of individual students in isolation with a single subject which is common in all examinations and which shows definite trend of achievement. The common characteristics of progressive, regressive, stable and fluctuating individuals in isolation can be studied and compared with the average performance trends in groups as in the present case and the conclusions can then be generalised.

There is also further scope for studying environmental impact on individual achievement, personality and interest variations which can be compared for different age and sex groups, rural and urban cultures, language variations like Bengali, English, Hindi etc. as medium of instruction, private, institutional and distant learners (correspondence Course) etc. A comparison of characteristics may be accepted as generalised conclusions on the basis of in-depth study as well as degrees of variability caused by different affective variables.

Moreover, a study of the same individuals with agreed record of
performance, by different methods and formula, may provide a scope for comparison of the results thereby helping arrive at a general inference making it more authentic, general and conclusive having prospect for wider practical application.

6.5 ORIGINALITY AND IMPLICATIONS

The study is one of a very few research activities that tends to trace out personality factors and interest patterns associated with variations of achievement i.e., degree of success or failure over a considerable period of learning in an individual's life. While a good number of research works are available on the overall performance of individuals this study seeks to relate the trend of achievement as a normal course of activity considering the factors to be interactive i.e., each one influencing the other. Individual achievement reflects a specific type of personality and interest that change with age, environment and opportunities alongwith other affective factors. This is like a SWOT (Strength, Weakness, Opportunities and Threats) analysis widely practised in commercial organisations which results in adopting corrective measures to maintain an improved performance which is so important in a competitive world.

All individuals are to face competition for survival and attainment of excellence throughout life and it is not limited only to a particular stage of academic career. Specific indications of affective factors may provide quick, correct and timely measures to mitigate difficulties.
A proper prognostication of personality and interest patterns will steer up adoption of prescriptive measures through diagnostic intervention at any stage of academic career of an individual, particularly in the formative years of life, so that by neutralising retrogressing factors and encouraging achievement motivation, intrinsic as well as extrinsic, desired results may be achieved.

Since achievement as the end product of the learning process manifests specific personality and interest patterns at different levels of success or failure, by altering these factors achievement may also be changed.

The study is expected to promote indication, the knowledge of which may generate scopes to change the fates of stable and even regressive achievers by enabling them to move on smooth and progressive path which will leave a lasting effect on the field of projected development of human potential which is the most precious and important resource for the survival and dominance of a nation. It will be of much practical value in offering effective and meaningful guidance to pupils right from the initial stage of education through proper curriculum development at institutions and maintaining a congenial atmosphere at home. The problem of high percentage of failures of our students in academic pursuits and even after academic success not so bright performance in a particular vocation can be explained and controlled by the type of factor analysis applied in the present study. After clear indication of factors that promote achievement, desired level of performance can be forecast with a
considerable degree of accuracy by developing interest and personality traits in individual, and this will, it is hoped, reduce wastage in educational expenditure and minimise frustration of students in general.