CHAPTER - I

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Academic Achievement is the unique, prime and perennial responsibility of a school or any other educational institution established by the society to promote a wholesome scholastic growth and development of a child. The greatness of it depends upon the quality and quantity of scholars and intellectual robots it produces. Its brilliant academic records are deemed to be the most widely used index of its worth and success.

Observational and scientific investigations have lent a unanimous support to the widely held viewpoint that intellectual superiority of the individual plays a prominent role in determining the limits of academic achievement (Hollingworth and Cobb, 1923; Terman et al., 1925; Freeman, 1942; Crawford and Burnham, 1946; Gowen, 1955; Vernon, 1970).

Intelligence tests pave the way to academic aristocracy. Due to their importance in scholastic achievements, they are also known as 'scholastic aptitude tests'. Yet there is no "a priori" (Thorndike, 1963) justification, no alleged orthodoxy to expect an exact correspondence between intelligence and achievement. Intellectual brilliance does not necessarily warrant academic brilliance. Scientific investigations have reported the correlations between the two to be ranging from .90 to -.01 (Stephens, 1960; Green and Farquhar, 1965). Still the picture is not that dooming because majority of the investigators have reported the correlations to be within the range of .50 to .70 (Freeman, 1942; Dibble, 1967; Pandey and Singh, 1970). In view of
generally high correlations, predictions of academic brilliance are often made on the basis of brilliance of scholastic aptitudes. But sometimes it is observed that two individuals, exactly alike in intellective endowments, having the same age, belonging to the same class and judged objectively by the same teacher exhibit variations in educational accomplishments, leading to sometimes over-and under-achievement, that is, when actual achievement exceeds or falls short of expected achievement.

It is due to the intervening non-intellective behaviour-environmental correlates, which creep in and though they affect the achievements with slow stealthy pace, yet they cannot be put aside.

A viewpoint espoused by Altus (1947), Pierce (1962), Frank (1967), Buck (1969) and De Leon (1970) confirms the fact that one of the explanations of discrepant academic achievement lies in the 'adjustment' of the students. Deficit needs, perturbing problems and exacting demands may ill-adjust the individuals in various areas of life and this may be detrimental to scholastic attainments.

Attempts to explain academic achievement or over-and under-achievement in the context of cognito-personological determinants can be traced back to Stagner (1933), Altus (1948), and Gough (1949), and the importance of which can be observed even now because of the bulk of literature being produced in recent times related to these determinants (Eysenck, 1957; Lynn, 1959; Holland, 1960; Cattell et al., 1961; Cattell and Sealy, 1965; Cattell and Sweney, 1966; Entwistle and Welsh, 1969; Entwistle and Entwistle, 1970; Homine, 1970; Entwistle and Brennan, 1971; Entwistle et al., 1971; Barton et al., 1971, 1972a, 1972b).
Habits and attitudes as non-intellective parameters affecting academic achievement and over- and under-achievement have also been given impetus by Harris (1940), Carter (1950), Holtzman, Brown and Farquhar (1954), Mitra (1959), Carwise (1968), Gums (1968), Entwistle and Entwistle (1970), Entwistle and Brennan (1971) and Pelcovitz (1971).

Another widely encroached upon area is that of achievement motivation as it affects academic achievement as well as over- and under-achievement. An aimless drifter can never achieve to his maximum. Studies of the past (Narziss Ach, 1910; Levin, 1926; Murray, 1938) and of the present (McClelland et al., 1953; McClelland, 1958, 1961; Lum, 1960; Mukherjee, 1965; Atkinson and Feather, 1966; Hackhöflin, 1967; Blasser, 1972; Simon and Bibb, 1974) all have unanimously reached the conclusion that achievement motivation or 'n-Ach' is a potent factor in academic achievement. If students are not provided with a motive power, that may lead to their debacle (Allen, 1964).

Goodfellow (1932), Segel (1934), Jacobson (1942), Saunders (1953), Fredrickson (1954), Frankel (1960), Chatterjee and Mukherjee (1963), Hummel and Spintall (1965), O'Shea (1968), Seiden (1966), Katz and Norris (1972) are among a host of investigators who have highlighted the importance of interests in scholastic attainments.

Besides, cultural advantages and better socio-economic status also play important role in boosting up the educational proficiency of the students (Burt, 1937; Frankel, 1960; Januar, 1963; Vane, 1966; Chopra, 1967; Gurnan, 1969).
There is no denying the fact that all these non-intellective and environmental factors taken singly, contribute very little to the academic variations. Rather it is the dynamic interplay of all these determinants which cause academic discrepancies within the same ability range. All contribute their quota to the ultimate academic success or failure. This originated the concept of over- and under-achieving syndrome of 'non-cognite psychological-environmental' traits.

Pointing to the importance of multidimensional moderators, besides cognitive factors, Co.gh (1953) observed more than two decades back that "the reason for this emphasis is not to be found in any doctrinaire predilection for certain variables, for certain conceptual scheme or even for one kind of vocabulary over another. On the contrary, straight-forward empirical justification exists for such an emphasis-the more accurate and reliable predictions which are made possible by including such data in the forecasting equations. Ames (1943), Fishman (1970), Romine, Davis and Gehman (1970) and Sinha (1970) have expressed similar views.

A perusal of the investigations about the non-intellective behaviourio-environment correlates of academic achievement show that though there is a mushroom growth of research in this field, yet most of the investigators have studied either one or two or three variables at a time. Except for a few sporadic investigations where the efforts have been directed to study these variables in different combinations and constellations, most of them have studied them piece meal and thus, they did not get global picture of the whole phenomenon.
Such studies are all the more few in the domain of academic over- and under-achievement. The present study was stipulated with the idea that if most of these different determinants are taken together and studied for the entire academic range or for over- and under-achievers only, they might give quite a different picture from what they have been giving when taken separately.

Besides, overachievers and underachievers are heterogeneous groups and are found at all levels of intelligence. This factor raised the issue in the mind of the investigator of this study that the syndrome of these traits might be different for over-achievers and underachievers on the whole as well as when considered at different levels of intelligence. All this led to the title of the present study as "Characteristic Behavioural and Environmental Correlates of Academic Achievement of Over- and Under-achievers at Different Levels of Intelligence".

The study was designed in such a way as to encroach upon so many variables at the same time and study them at different stages. In brief, the present investigation revolves around the following key issues:

1. whether the dynamic interplay of behavioural and environmental variables on academic achievement examined globally, accounts for differences among groups representing - (i) the entire range of intelligence and achievement (by taking the representative total sample), and (ii) same ability (intelligence) level and two levels of discrepant academic achievement, that is, over- and under-achievement.
2. whether the analytical picture of correlates of academic achievement differs among groups representing (i) the total range of ability and achievement, and also (ii) same ability level and two levels of discrepant achievement.

3. whether the analytical picture of behavioural and environmental correlates is different for two levels of discrepant academic achievement (over- and under-achievement) at different levels of intelligence.

4. whether the comparative analytical picture of behavioural and environmental correlates is different for groups representing (i) the total range of ability and achievement (ii) over- and under-achievement and lastly (iii) over- and under-achievement at different levels of intelligence.

NEED OF THE STUDY

The Indian scene of Education is witnessing enrolment explosion in Schools and there is booming of higher education in Colleges as a consequence of adherence to the ideal of equal educational opportunity for all. For instance, according to Education Commission Report (1966) enrolment in classes VIII through XI increased from 1.8 million or 6.1 per cent of the age group 13-17 years in 1950 to 7.5 million or 14.5 per cent of the age group in 1965 which implies an average annual growth of 9.8 per cent. According to the Planning Commission (1970) of the 'Fourth Five Year Plan' (1969-74) the targets of increase
of enrolment of Secondary Education in the age group 14-17 years (IX through XI, Classes) are from 6.58 millions (1968-69) to 9.69 million pupils that is, an increase from 19.3 per cent to 24.2 per cent of the age group mentioned above. So taken by itself, it will be a laudable achievement.

Thus, firstly the indiscriminate policy of expanding admissions would lead to a great rush in educational institutions. Secondly, individual differences would be very wide. Thirdly, individual attention to pupils would not be possible. Lastly, limited resources of the country would fail to grapple successfully with the increasing demand on its exchequer for education. Cumulative effect of these factors would influence the quality of educational achievement in general. Even in the presence of potentials to achieve higher, it may not be possible for some pupils to achieve to that extent in the midst of a variety of factors as mentioned above. As a result there is a greater possibility to come across underachievers. All educational efforts should be directed towards making it possible to ensure the actualization of one's talent and potentials. Guided by such a consideration, the need of the present study was felt.

To put the matter, succinctly, the investigator was propelled to embark upon this field due to its urgent need in modern times. Its need was felt for the individual students, for the parents and guardians; for the administrators, the psychologists, the counsellors, the research workers and the educationists; for the nation as a whole and for the changing modern times at large. In short, its need could be felt by anyone interested in the right educational growth of the students' community.
At the individual level, overachievers are the 'pearls' and 'diamonds' of the society, who make the best use of their endowments and the situations provided for their betterment. This fact must be highlighted to such individuals so that they keep up and maintain the same standard. Underachievers, however, are the 'pebbles' and 'rubbles' of the society. If they are given the proper attention, they can shine in life and can also reach their 'maxima' in academic pursuits. So, while the former are to be given their due share of praise, the latter must not be neglected in any case.

Underachievement can be in the form of tremendous amount of failures and low grades than expected from the cognitive abilities of the students. Magnitude of the problem of wastage, stagnation and failures can be gauged by the fact that usually only one out of eight adolescent pupils in the age group 14-17 years reaches secondary education and out of this highly selective population, sizable proportion of student community (approximately 50 per cent) fail to qualify every year. Again, many among them do not get grades commensurate with their capacities, when the root cause of all these would be known and the remedy provided, underachievement would be reduced to the minimum. Thus, the talent debased or neglected would be re-enhanced, adding to the self-esteem, self-worth and better adjustment of the achievers. A comparative study of over- and under-achievers would lead to identifying such behavioural and environmental correlates as distinguish between these groups of students. If some of the manipulable variables which go with the overachievers are provided to underachievers, that would justify the utilization of limited
resources of the country. Programs like 'Intervention Programs' including 'Early Training Programmes' (Gray and Klaus, 1965 and 1970) where the psychologists intervene hope-fully and in a significant way are geared to goad under-achievers to a higher level of achievement.

Such studies can be a source of great satisfaction and inspiration or are the guidelines for parents and guardians of oversuccessors or underachievers respectively. Parents at home must fall in with the tempo of child's development and must cater to his/her needs at every step. It is not enough to have a child of a 'good' intellect. Rather, how well he uses it, is more important.

Again, undersuccessment is a challenge and a common concern of administrators, psychologists, educators and guidance workers alike. They must know the behaviour-environmental constellation of traits of those who have achieved more than expected so that they can give incentive to the undersuccessers and try to help them cultivate alike characteristics so that the talent lost can be regained. Thus, such like studies are of great practical and theoretical significance to them.

Educational institutions are the most important sanctuary which carry the responsibility of their student$. The adminis-trators, the psychologists and the counsellors of these institutions have to deal with the bubbling, booming, enthusiastic youths of the society, a few of which are oversuccessers and undersuccessers. The administrators and personnel workers can be of great help to these oversuccessers and undersuccessers in
two ways. Firstly, by knowing the phenomenon of over- and under-
achievement, they can tailor the educational opportunities and
the curriculum according to the needs and requirements of these
students. Secondly, when the best use of the talent is made,
true love of learning is instilled, which leads to the reduction
of problem of indiscipline. Such studies can be equally import-
ant for educational reformers and teachers.

Additional impetus and justification has been accorded to
the need of study in this field by increasing awareness of
differences due to levels of ability or intelligence. It is
assumed that psycho-social factors are differentially related
to achievement for different pupils belonging to different levels
of ability.

Again, sometimes educational officials become enmeshed
by giving undue importance to IQ tests. Those scoring low are
designated as slow learners and are barred from opportunities
of higher education. But two individuals having the same IQ,
but one topping the list and the other coming at the lower rung
of the ladder, swings the pendulum against orthodox opinion
and creates a new hope that stress can be given on non-cognitive
factors besides the cognitive ones.

Changing interest of the student community makes such
studies all the more important. To quote Jersild (1963), Coleman
(1959) studied approximately eight thousand high school students
and observed that there was nonchalance and negative attitude
of these students towards educational matters. Majority of the
modern youth is drifting away from educational concerns and is
developing interests in things other than education. Obviously, the number of underachievers will increase and they are actively increasing. This is mounting to the evidence that there is a great need to attend to the underachievers.

For the nation, on the whole, when it spends huge funds on education, the greatest return of all this investment is when the human resources exhibit satisfactory yield in the form of overachievement. Moreover, the pride and prize of a nation lies in the achievement of its members.

Besides, the ever-broadening spectrum of educational, scientific and technological advancement places greater premium on talent and brain-power. Underachievers are lagged far behind their intellectual ability and are a gross alarming loss to the society. Thus, intellectual and scholastic talent must be tapped fully.

Actually, psychology of correlates and prediction of academic achievement is in a disturbed state and is in need of some kind of reorientation. Young (1961) nicely pointed out that "it is in a state of turmoil." There has been a revolution (or a series of revolutions) and the outcome is not clear. So this tricky dilemma of correlates of academic over- and under-achievement should be probed more intensively. Though some efforts have been made to explore this field in the West and a number of sketchy studies are available in the East, yet a large majority of them, with a few exceptions, report equivocal findings due to inadequate sampling, insufficient replicated or longitudinal studies and piecemeal study of different behaviour-environmental correlates of academic achievement. Hence,
there is apathetic dearth of adequate scientific and comprehensive data. The present investigation, it is hoped, would be of significance for furtherance of scientific knowledge in the field of over- and under-achievement.

PLAN OF THE RESEARCH REPORT

The introductory chapter (Chapter I) of this report presents a rationale and need of the study of finding out characteristic behavioural and environmental correlates of academic achievement of over- and under-achievers at different levels of intelligence. Chapter II treats the various theoretical views concerning the concepts of academic achievement and over- and under-achievement and the different approaches to identify over- and under-achievers. Chapter III contains background of the problem, including the review of the related literature of behavioural and environmental correlates of academic achievement and of over- and under-achievement along with the delimitation of the problem and the hypotheses. Design, sample, procedural steps adopted for identifying overachievers and under-achievers, tools used, and the collection of the data are included in Chapter IV. Description of data finds its place in Chapter V. Attempts to identify, globally and analytically, the characteristic behavioural and environmental correlates of academic achievement, of over- and under-achievement and of over- and under-achievement at different levels of intelligence with the help of varied statistical approaches have been made in the next five chapters (Chapter VI through X). The last chapter (Chapter XI) contains summary and conclusions of the present
study. This chapter does not introduce any new content rather it is an evaluation and an overview of the whole research report. As usual, bibliography and appendices are given at the end of the research report.