CHAPTER II

The Problem of Underachievement - A Survey of Related Research

This chapter considers studies on the nature and scope of the problem of underachievement, theories of causation and previous attempts to eliminate this educational problem.

The Nature and Scope of the problem of underachievement

The definition of underachievement is an arbitrary matter, and almost every study uses a different criterion to select its underachieving subjects. Fundamentally, however, all acceptable definitions conform to the concept as it is presented by Thorndike (1935).

As a research problem the problem of 'underachievement' is one of understanding our failures in predicting achievement and of identifying more crucial factors or additional factors that will permit us to predict it more accurately. The research problem includes also the attempt to identify and manipulate the controllable factors influencing achievement, so that the level of achievement, especially of those doing less than one would expect them to, may be raised (p.3).

Thus, for example, when the expectations or predictions of what a particular student should be able to do in mathematics, based upon various methods of forecasting, fail to be realized, he is likely to be labelled an underachiever.
A broad definition of the underachiever is presented by Shaw (1961).

The underachiever with superior ability is one whose performance, as judged either by grades or achievement-test scores, is significantly below his measured or demonstrated aptitudes or potential for academic achievement (p.15).

Thorndike (1963) has suggested that it is necessary to define underachievement as the discrepancy of actual achievement from some predicted value based on the regression-equation between aptitude and achievement. This procedure controls the well-known regression effect that so often confounds the findings of research employing standardized tests. Parquhar and Payne (1964) suggested the superiority of a linear regression-prediction using plus and minus one Standard Error of Estimate as the upper and lower limits of discrepancy between the actual achievement and the predicted achievement.

Winkler, Teigland, Munger and Krabler (1966) identified Fourth-grade underachievers by predicting grade-point-average from the verbal scale of the Wechsler Intelligence scale for children. If the grade-point-average predicted by a regression-equation was 0.8 standard error of estimate above the obtained grade-point-average, the student was identified as an underachiever.

Raph, Goldberg and Passov (1966) used the following operational definition for their research study:
From an educational point of view, it would include all those students who score in the top decile (or beyond 1.5 standard deviations above the mean) on tests of intelligence and academic aptitude but whose academic performance is at or below the median (or mean) for the general age-group (p. 15).

For the present investigation, it was considered appropriate to use 0.9 Standard Error of Estimate as the discrepancy score as it would afford an adequate sample of underachievers. Setting the limit at one or more Standard Error of Estimate might shrink the size of the sample of underachievers. It would be useful to note, however, that according to the way in which predictions of achievement are arrived at, different types of underachievers are identified.

The literature will now be reviewed which deals with two vital questions: Why do some pupils fail to perform academically up to their measured ability? and, what can be done to alter their pattern of underachievement?

The Causation of Underachievement

Thorndike (1963) appears to affirm the importance of clinical and practical approaches.

The causes of 'underachievement' are in all probability manifold. Many of these causative factors may well represent contingencies that arise in only a minority of cases. The contingency or complex of contingencies may be quite important when it does occur, but occur so infrequently that its influence cannot be convincingly
demonstrated by statistical studies. Intensive Study of individual cases may generate a high level of intuitive confidence in the importance of some such factor in a specified case. How to verify and test such clinical insights is one of the chronic problems of psychological and educational research (p. 67).

Using Rorschach analysis to study the behavior of underachievers, Bricklin and Bricklin (1967) described them as 'passive aggressive'.

The majority of underachievers are hyperaggressively inclined but can only express this aggressiveness in limited life-areas ....... There is no 'total ego' involvement in the aggressiveness of the underachiever'.

(p. xxi)

The underachiever's anger may be projected into the past, and so away from the ego, or it may not be accepted by him at all, that is, it is consciously unacceptable to him. Because of his own underlying aggressiveness, he is in constant fear of aggressive-retaliation.

Typically, the underachiever wants very badly to achieve, but because of his fear of retaliation he is afraid to take the risks of failure, which are consequent upon trying. This is taken to reflect the fact that the underachiever has linked his sense of self-worth to his ability to accomplish. Bricklin and Bricklin have made a convincing case for the assumption that anxiety and emotional disturbances are critical in the genesis and maintenance of underachieving patterns of behaviour.

Another research endeavour, that of need-Achievement (Mc Clelland, 1953) has provocative implications for the understanding of the functioning
of the underachiever. Atkinson (1960) for example, conceptualizes two dispositions activated in a performance-situation: One, the "achievement motive", or the capacity to derive satisfaction from successful exercise of skill; the other, the "motive to avoid failure" an independent capacity to experience shame, humiliation, and embarrassment as a 'concomitant of failure'. He postulates that these two opposing tendencies, to approach and to withdraw are inherent in any activity when the individual expects that his performance will be evaluated and that the outcome will be either a personal accomplishment or a sense of incompetence. He bases a number of predictions on this model, among them that individuals whose need for success is stronger than their fear of failure will try harder and perform better than individuals with the reverse pattern, i.e., those whose fear of failure is stronger than their need for success.

Bruner and Caron (1959) developed, through empirical analysis, a dynamic and cognitive picture of overachievement and underachievement in sixth grade boys and girls in a middle class culture. The Wechsler Intelligence Scale for children was administered to 64 subjects, school grades were converted into standard scores, and discrepancy scores between the two distributions were examined. The seven boys with the greatest discrepancy between IQ and School performance whose performance exceeded IQ were designated as overachievers; the seven in the opposite direction were designated as underachievers. On several measures including Mc Clelland's TAT Sarason's Anxiety Tests, and some memory
procedures intended to measure the efficiency of retention for achievement-related material in contrast to neutral material, the over-achieving boys had a higher TAT achievement score than under-achieving boys; tended to recall achievement-related response words; and expended more effort to solve problems in competitive situations.

The definitions and nature of underachievement have now been given some consideration. Some studies have been quoted to answer the question: "Why do some pupils fail to perform academically up to their measured ability?" A brief view will now be given to answer the question "What can be done to alter their pattern of underachievement?".

Attempts to Eliminate Underachievement

A major effort to find a way to modify underachievement was undertaken by the Staff of the Talented Youth Project of the Horace Mann-Lincoln Institute (Raph, Goldberg and Passov, 1966) at DeWitt Clinton High School in New York. It was a boys' high school that drew from an ethnically and socio-economically diverse population. The investigation covered a period of five years from 1956 to 1962. It consisted of three separate studies, initiated in sequence in the fall semesters of 1956, 1957, and 1958 respectively. 227 underachieving boys and 100 high-achieving boys were identified and assigned to experimental and control groups according to the designs of the separate studies.
The Homeroom - Social Studies Class (1956 - 1959) provided special grouping for four semesters. The Geometry Special Class (1957) was studied for one year. The Group Guidance and Study Skills Special Classes (1958 - 1961) encompassed the full three-year period of high school for one group of underachievers and two years for a second group. The studies were developmental in nature in that the second undertaking was based on some observations and hunches formulated in the first study, while the third study drew some of the features of its design from conclusions reached in the two previous studies. Each study used a different group of entering tenth graders.

The main focus of these studies was on the effects of certain school provisions on scholastic performance. However, attention was directed throughout this work to the underachievers themselves - their backgrounds, family attitudes, classroom behaviour, personal insights, friendships, educational and vocational aspirations, and their own attitudes about themselves, other persons and the school.

The first study was designed to study the effects of grouping gifted underachievers in a homeroom section. It was hypothesised that if such students could share each other's problems and become closely identified with and receive support from a teacher, their general scholastic attitudes and performance would improve. The classroom climate was such that the boys felt free to come to the teacher with personal as well as school problems. At all times they found an attentive listener, ready to help with support and suggestions geared to increase the youngster's self-confidence.
The experimental effects, although apparently significant after the first year of the special class, showed no significant carry-over into the eleventh and twelfth years of school. The failures were mostly in mathematics.

A second study was designed to meet the challenge of the failure of a large number of high-ability boys in mathematics, and was called 'Special Geometry Class'. While the basic geometry content for the special class and the classes in which the control group functioned was essentially the same, the approach in the special class stressed concept-formation and minimized drill and memorization. Considerable attention was given to the development of better work-study skills, quizzes and tests.

The results were uneven. The subjects in the special class showed no more improvement as far as class grades in mathematics were concerned than did the subjects in the control group scheduled in the usual way.

A third study called 'The Group Guidance and Study Skills Classes' was designed for a group of X grade boys (N = 34) matched on intelligence, age and membership in Special Progress classes during the Junior high school. Two of the groups, designated A (N = 29) and B (N = 29), constituted special groups placed in homeroom sections with carefully selected teachers. The third group, designated as C (N = 26) acted as a control group. The study allowed for a comparison of the effects of two highly dissimilar teachers. One of the teachers (with Group B) was exceptionally warm and outgoing, spent much time with individual student and made contacts with parents.
The second teacher (with Group A) was not consistent in his approach. At times he was totally permissive, allowing every kind of activity - reading comics, doing assignments, rough-housing, etc. At other times he would demand absolute quiet, forbidding the students even to do their homework during the hour. He took little personal interest in the boys or in their families.

At the end of grade X comparisons among groups by analyses of variance revealed that the grades of the underachieving students in the special classes (Groups A and B) did not differ from those of the control group (Group C). Nor did the two special classes differ from each other. The expectation that providing underachievers with a teacher who could act as a model, friend and guide would produce upgrading effects on achievement did not materialize.

The experiments described here, as well as the impressions of people who have worked with gifted underachievers in classes and in counselling relationships, suggest that efforts initiated at the senior high school level show little promise of success. For many of the students, underachievement seems to have become a deeply rooted way of life, un-amenable to change through school efforts. Early identification of the potential underachiever, in terms of cognitive as well as socio-personal factors, might enable schools to engage in preventive rather than curative programmes for these gifted students.
Calhoun (1956) approached the problem of academic underachievement in eighth graders by holding a minimum of three individual conferences with an experimental group during the school year. In these interviews test results were interpreted by the counsellor and the pupils were encouraged to develop plans to alleviate their underachievement based on the students' own analyses of the reasons for their problems. Pre and Post-standard achievement test results showed no significant difference between the experimental and control groups. School marks of the experimental group, in contrast, were better by a statistically significant margin based on five reports during the year. Ratings of pupil-interest in school work also favoured the experimental group. The results add a more optimistic note concerning the effects of counselling as they indicate that as few as three individual interviews make a difference in grade-point-average. Whether or not such gains are sustained would need to be established by further study.

Marx (1959) compared the effectiveness of two methods of counselling - individual and group counselling, with a group of 181 freshman academic underachievers. Of the 104 who reported for counselling, 48 were assigned randomly to groups; 58 were seen individually and the 53 students who did not respond to the opportunity for counselling were used as controls. Counsellees seen individually made significantly greater grade-point improvement than did the counsellees seen groups or control group. Also, more of the students in the counselled groups completed the second semester than did those in the control group. However, the grade-point-average for
the total group counselled did not differ significantly from the control group. The results were cited as inconclusive by the investigator.

Caldwell (1962), Harris (1962), and Keppers (1962) in independent studies attempted to assess the effect of intensive vocational counselling, group therapy, and group counselling respectively on high school adolescents with scholastic underachievement records. While there were some positive changes in the counselled individuals, similar favourable outcomes were in evidence for individuals in the control group as well. The changes were not of sufficient magnitude to furnish strong support for its approach to remediation of underachievement problems.

Mink (1964) reported on an attempt to use multiple counselling with eight underachievers paired on IQ and sex with a control sample. The groups were formed by taking seventh and eighth grade students who scored an IQ of 118+ on the Lorge-Thorndike Intelligence Test and who were doing below average or failing work in three or more subjects. The students received eleven 45-minute group sessions with the school psychologist, who began counselling in a client-centred philosophy and gradually became more directive with the sessions concentrating on goal-setting and emphasising more cognitive than affective elements. The parents were also seen for a two-hour session and a one-hour session. Pre and Post-test measures were obtained on the Allport-Vernon Scale of Values, the Brown-Holtzman Survey of Study Habits and various guidance tests and inventories. No changes were noted in the grades of the students.
Shouksmith and Taylor (1964) evaluated the effect of a short period of counselling on children of high intelligence but low achievement. Three groups of 12 children each (aged 12 and 15) in the intermediate school setting in England were matched on IQ, Sex and Achievement. The experimental group received individual attention and counselling weekly or biweekly with the parents of the counselled group seen twice during the experimental period. A placebo group of youngsters was given some tests during the six-month period, while the control group received no attention at all. The results of this programme indicated that eight members of the experimental group were no longer classified as underachievers following the counselling. There was improved peer and social acceptance and teachers remarked on the noticeable difference in the readiness for work from this group. In contrast to this favourable response, all the placebo group and 10 out of 12 members of the control group remained classified as underachievers at this time. Under the conditions that prevailed in this experiment, counselling was beneficial for gifted underachievers. The authors noted that one particularly helpful aspect of the study was the cooperation received from the parents of the experimental group which, they speculate, may have had a positive influence on the results.

Winkler, Teigland, Manger and Kranzler (1965) studied the effects of selected counselling and remedial techniques in altering grade-point-average and measured personality variables of underachieving fourth grade students. Out of 700 students tested, 121 were randomly assigned to one
one of the five experimental conditions - Individual Counselling, Group Counselling, Hawthorne Effect, and Control. The counselling was done by six male counsellors who had at least a Master's Degree and 6 semester-hours of counselling practicum experience at the secondary and college level. Each treatment group met with a counsellor in a private room either individually or in groups. The treatments were approximately a half-hour in length for 14 sessions. The results indicated that the various treatments were not effective in producing significant changes. Evidently the counsellors lacked training and experience in the area of elementary school counselling. It is possible that different methods are required when working with elementary school children to provide them with experiences that would facilitate change.

Chestnut (1965) investigated the effects of two types of counselling experiences with male college underachievers. One type of treatment was labelled counsellor-structured. The experience placed emphasis on material based upon a 'a priori' diagnostic assumptions and presented by the counsellor for discussion. The second type of treatment labelled group-structured, placed emphasis on material spontaneously originating within the group. The control group received no treatment.

Results indicated that those subjects in the counsellor-structured group had a significantly greater rate of change in grade-point-average after counselling than subjects in either group-structured or control groups.
Andrews (1969) used two treatment techniques to reduce anxiety and increase achievement of tenth and eleventh grade underachieving students. A combination of Desensitization and Reinforcement was given to one treatment group of 16 high-anxious high school matriculation boys. Client-centred counselling was given to a similar group. Significant anxiety-reduction occurred in the Behavioural (first) Group. However, no improvement in achievement occurred.

Parkins and Wicas (1971) counselled a group of bright underachieving 9th grade boys and their mothers. 120 boys and 60 mothers comprised the total sample. Five male public school counsellors were trained to offer minimal level of accurate empathy, regard and genuineness within a group-counselling context. Post-treatment results revealed significant increases in grade-point-average and self-acceptance. Additionally when Counsellors worked with mothers with or without students, the effect on underachievers was equal to or greater than when Counsellors worked only with underachievers.

Gilbreath (1971) worked with college male underachievers who were motivated to respond to an offer of counselling service aid, but did not receive counselling. They were compared to a comparable group of underachievers who were also offered counselling but did not respond. The results show that the motivated underachievers although they received no counselling, achieved significantly higher grades than the non-motivated underachievers. The willingness of underachievers to commit their time and energy to counselling programmes is partly an index of their motivation.
to succeed academically. Such underachievers may need less counselling
time to reach a satisfactory academic level than those who are not
motivated.

Summary

Studies conducted in the area of counselling underachievers provide
conflicting results. Calhoun (1956), Marx (1959), Shouksmith and Taylor
(1964), Chestnut (1965), Perkins and Wises (1971) and Gilbreath (1971),
report positive results eventhough, in some cases the gains were temporary
and shortlived. Raph 'et al' (1968), Caldwell (1962), Harris (1962),
Kepkpers (1962), Mink (1964), Winkler 'et al' (1965) and Andrews (1969)
report negative or neutral results. The failure might be due to several
factors. The techniques of counselling might not have motivated the under­
achievers to improve their study habits. Techniques such as desensitization
and reinforcement had only reduced the anxiety of the underachievers, but
did not increase their motivation to improve their academic achievement.
In some studies, counselling sessions were not directly conducted by the
researcher. On the other hand, the school counsellors were trained by the
investigator to conduct the counselling sessions in their respective
schools. Lack of direct contact between the investigator and the under­
achiever could be one of the reasons for negative results.

Need for the Present Study

Guidance and Counselling Services from an integral part of the
school system in the USA. In India, such services appear to be available
only in a few schools which are located in metropolitan areas. There is also a shortage of trained counsellors to meet the needs of student population. Under the circumstances, the problem of underachievement would remain unsolved, resulting in wastage and stagnation in schools. Therefore, there was a clear cut need to undertake an experiment on counselling underachievers with a view to find out whether this would result in improvement of academic achievement.

The investigator tried to experiment upon some new techniques of counselling such as the reading of biographies of eminent men, tape-recorded talks and discussions, quiz and home-assignments. In earlier studies, researchers had only used special coaching and group discussion on school subjects as motivational techniques. No one seemed to have used biographies of eminent men during counselling sessions.

Theoretical Rationale underlying the Study

The investigator attempted to deal with three important variables during the counselling interviews, namely, Ego, Level of Aspiration and Self-concept. Justification for the use of the above variables are presented in the following paragraphs.

Ego and Academic Performance

Ego, as conceived by Freud, refers to that part of the Psyche that is concerned with its direction and integration and with relating it to the reality of the external environment. An important goal of Freud's
technique of psychotherapy was the development of a strong ego in the patient in order to promote a more effective adjustment. If achievement can be conceived then, as involving adjustment, particularly as evidenced by purposeful direction, integration and reality-testing, achievement should be greater if the ego is strong. It follows high ego-strength should be related to achievement.

Adaptive Ego-functioning

Academic underachievement may be a problem in adaptive ego-functioning. As an individual confronts the flow of demands and opportunities in daily-living - for example, the tasks imposed by the school - he perceives and acts under the guidance of a system of psychic dispositions. This 'Guidance System' which comprises the conscious, rational and reality-oriented aspects of personality, is called the 'Ego'. The concept of Ego as a dynamic organization of perceptual and value dispositions through which an individual guides and governs his efforts to adapt to his environment has been given its most important treatment in Rapaport (1951), Hartman (1959), Gill (1959), and Hummel (1952).

The ego-structure, the network of personal dispositions within the ego, changes and develops as an individual matures and learns from experience. At any given moment, however, it influences significantly the manner in which a person governs his needs and impulses and guides his instrumental behaviour in response to the tasks and opportunities in the external world. It is in this sense that the ego can be construed as an agency, an 'establishment' through which an individual 'adapts' to
his environment. Some of the indicators of an 'adaptive ego' include: a rational orientation to problem-situations, a readiness to deal with a set of prescribed tasks with minimal delay, distraction or supervision; a planful orientation toward the future; and a willingness to postpone enjoyable activities in pursuit of a distant goal. The effectiveness of a student's academic performance is construed, in this context, to be an indicator of the adaptive strength of his ego.

Sprinthall (1963) focused his research on the non-intellective factors in achievement status, particularly those ego qualities centering around interests, attitudes and values. His data were taken from the Strong Vocational Interest Blank, the Strodtbeck V-Scale, the Allport-Vernon Lindsey study of values and the Guilford Zimmerman Temperament Survey. In discussing his findings, Sprinthall concluded that 'overachievers manifest more mature ego qualities than underachievers. They are significantly more disposed to planfulness and thoughtfulness in defining goals and in the realization of these goals. The overachievers are more positively oriented toward a mastery over the environment. The underachiever is less planful and thoughtful in his orientation to life. He is inclined to be fatalistic in his expectations concerning outcomes of personal effort. He is less likely to relate his conduct to long-range consequences. Such qualities as self-control, personal responsibility and a thoughtful, planful orientation to the tasks of living are among those commonly ascribed to a mature ego.'
Level of Aspiration and Underachievement

Achievement in school may be closely related to one's level of aspiration. Level of aspiration refers to how well an individual wishes to perform in the future compared to how well he had done in the past. It is closely related to one's self-concept and goal-setting behaviour. If an individual's aim is higher than what he had attained previously, he is said to have a high level of aspiration. If his aim is lower than the goals he attained previously, he is said to have a low level of aspiration.

Experimental work on level of aspiration demonstrates that experiences of success result in a person's raising his level of aspiration, while, on the average, experience of failure results in lowering the aspiration. Experience of success may result in increasing confidence and optimism while persistent failure may result in resignation and pessimism. The main task of the teacher would be to build up the ego-strength of the individual that would enable him to set realistic goals.

Studies by Raph, Goldberg and Passov (1965) indicated that the underachiever perceived himself as less able to fulfil the tasks required of him, less eager to learn, less confident of himself and less-ambitious than did the high-achiever. But his level of aspiration in those areas was as high as that of the high achiever. Thus, the gap was great, perhaps too great for him to believe that any amount of effort would close it.
The wide gap between the underachiever's ratings of his present and ideal level was a reflection of the gap that actually existed between his present school performance and his educational and vocational aspirations. Most characteristic of the underachiever was his failure to be moved to greater effort by the recognition of the gap. It was almost as if he expected some magic to take care of the situation. Majority of the students wanted to improve. They periodically 'turned over the new leaf' promising themselves that they would try harder and do better. The good resolutions rarely lasted long enough to provide the necessary success for overcoming their inadequate work-patterns.

Encouragement and a reasonable level of expectation might act as a spur to effort and perseverance. Too low a level of expectation tends to take a pupil accept too low a standard of achievement; too high expectations lead to discouragement and diminished effort because he feels he cannot live up to what is required of him. To be optimal the level of expectation needs to be geared to each individual's capability at a given stage of growth, a level where success is possible but not without effort.

Undersatffishment - An instance of Perceptual malnutrition

As the individual's self-concept appears to be a potent factor in building up the ego-strength and goal-setting behaviour, the emergence of self deserves mention here. The theory of self has formed the basis for a growing number of studies attempting to determine what relationship, if any, exists between bright students' perceptions of themselves and their abilities and the utilization of such abilities. Rogers' (1959) definition
of self has been used. The self is "that organized, consistent, conceptual
gestalt composed of perceptions of the characteristics of the 'I' or 'me'
and the perceptions of the relationships of the 'I' or 'me' to others and
to various aspects of life, together with the values attached to these
perceptions" — (p. 200).

Underachievement may be construed as an individual's inability to
perceive oneself — "Perceptual malnutrition". Coombs and Snygg (1959),
Kelley (1951), Maslow (1954), Rogers (1951), and Leckey (1945) have pointed
out that man has a built-in thrust or will to health — a need to become a
fully functioning or self-actualizing individual. People around the
individual form the climate and the soil in which the self grows. If the
soil is fertile and the climate wholesome, there is vigorous growth. If
the climate is unwholesome and unkind, growth is stunted or blocked.
One's relationship with peers, the perceptions and evaluations of parents
and teachers and classroom experiences, rather than fostering growth,
may, at times, delimit the opportunities for growth or feed the self-
concept with images of inadequacy, failure and incompetence. 'Perceptual
malnutrition' the illness of not growing results.

A student's resistance to doing assigned work, non-learning, poor
study-habits and consequent underachievement are signs of perceptual mal-
nutrition. The thrust to growth is blocked. This does not mean that the
pupil is unmotivated. He still has the potential for growth, the capacity
to select what is good for the self, the natural thrust towards self-
fulfillment. But his inner core is imprisoned. Counselling may help the
individual to peel off the defensive layer so that the imprisoned self may
again become expressive and exert its thrust toward adequacy.
An eclectic approach

The investigator has made an attempt to integrate the principles of adaptive ego-functioning, level of aspiration and self-concept in the counselling sessions. Studies in the area of underachievement were usually undertaken with one of these variables. Rarely investigators attempted to study the interaction effects of the three variables on underachievement. It was hypothesised that helping an underachiever function in accordance with reality as represented by ego would enable him to overcome underachievement. Similarly, bridging the gap between a pupil's aspirations and actual performance might result in improved academic achievement. It was also considered appropriate to help him perceive himself in proper perspective so that he could overcome distortions of self-image and perceptual malnutrition.