

CHAPTER - II

REVIEW OF LITERATURE

1. SOCIAL AND CULTURAL FACTORS:

Socio-Economic Status:

It has amply been proved that one's chance to go to a college (or, to some extent even to a school) for education depends upon the socio-economic status of his family (Astin, 1964; Berdic, 1954; Cowhing, 1963; Farwell, Heist and McCornell, 1960; Henry, 1965; Mallenson, 1959; Phearman, 1949; Wright and Jung, 1959; Walberg, Singh and Tsai, 1984; Basavana and Rani, 1984). Not only this, the socio-economic status of the family is related to the level of one's academic achievement as well. It is possible because higher socio-economic status may better facilities for education and more

intellectual stimulations because of greater parental expectations (Thompson, Alexander and Entwisle, 1988). Family's socio-economic status may also influence a student's attitudes, interests, values, motivations, etc., which may in turn influence his academic achievement. According to an eminent psychologist "... it (social class) is so closely associated with cultural level and with attitudes towards education that it has a marked effect on educational progress" (Vernon, 1958). Roson (1956) observes that middle class parents place greater emphasis on mobility and success than the parents of low social status. Naturally, their children are more likely to go for achievement-oriented behaviours. Several other investigators in this area (e.g., Abrahamson, 1952; Barger and Hall, 1965; Chopra, 1968; Cole Jr., 1956; Frankel, 1960; Furneaux, 1963; Phillips, 1962; Rao, 1970; Shaw and Brown, 1957; Weitz and Wilkinson, 1957) have also found socio-economic status to be positively associated with academic ability and performance. Not only the level of academic achievement, but the stage one reaches in the educational ladder and the kinds of courses he selects are also related to the social class he belongs to (Warner, Havinghurst and Loeb, 1944). Singh (1981) compared children belonging to advantaged, average and disadvantaged socio-economic status (SES) families. He found that SES had significant impact on creative thinking abilities of children belonging to advantaged and average SES groups. There are dissenting voices as well, for example, Joshi (1988) found in his study, that socio-economic status could explain only 2 per cent of the variance of academic achievement. Saur (1985)

also could not find any significant relationship of socio-economic status with scholastic achievement.

Father's Income:

Economic status of parents is closely associated with socio-economic status. Economic condition of the family is also important because smooth prosecution of studies becomes difficult under economic deprivations. High income group students completed high school more successfully and continued education in college, while low income group students failed more and were attracted to vocational programmes (Coster, 1959). These students have more positive attitudes towards education.

Feld Husen and Klausmeier (1962) found that socio-economic status is related with anxiety, educational aspiration and self-concept. Positive attributes are more closely associated with high socio-economic status than with low status. It has also been observed that the lower class individuals do not see education as a means of upward mobility not because they devalue education but because they do not wish to rise too far in educational world. This specific attitude places inconvenience upon the education to educate them meaningfully.

It may be concluded that socio-economic status more than the ability or I.Q. correlates highly with expectations for occupation and education. For Negro children in the United States, motivational scale predicts their achievement in high

school more than the test of intelligence. It was found that inferior status is accompanied by poor school achievement and poor motivation but not necessarily with impaired learning ability.

Kaushal (1971) in India concluded that poor economic standing of the family creates a stimulus for better career orientation and competition as compared to higher family economic levels.

Studies of Barger and Rall (1965), Brokaw (1962), Burns (1949), Snider and Linton (1964), Abrahamson (1952), Furneaux (1963), Phillips (1962) and Srivastava (1966) have found high socio-economic status having positive and significant relation with scholastic achievement. Similarly, Dockrell (1959) found socio-economic index and performance in English and Arithmetic to be significantly and positively related.

Burt (1937) observed, "there is little direct effect of sheer poverty upon scholastic achievement but the child from poor and uncultured homes may be less interested in learning." It may be because he receives insufficient encouragement at home, less cultural advantages and less general books and other reading materials.

In a study, conducted to find out the relationship between socio-economic (SE) conditions, environment and academic performance, Heyneman (1976) found a very low

correlation between primary leaving examination score and 5 SE measures (ranging from .02 to .07). A comparison between the present study and findings of the International Study of Educational Achievement (IEA), which was conducted in 19 countries, suggested that the more industrialized the society the more school achievement is related to pupils' SE conditions, environment and other out-of-school influences. A similar study was conducted by Warren (1985) to study the impact of home environment and such factors as parental behaviour, home literacy and educational ambition. He found that environment had more impact on measured intelligence than it had ~~on~~ attainment and had more effect on reading than on mathematics. He concluded that the impact of the environment becomes progressively stronger with age. In a similar study on 219 middle class eight grader Kurdek and Sinclair (1988) found that students in two parent nuclear families had greater academic performance and less problematic school behaviour than did students in other categories of parental conditions. A family environment that emphasised achievement and intellectual pursuits accounted for better school results. Home environment was found to be affecting academic achievement in Jochen and Heinz's (1985) as well.

Yawkey and Jantz (1974) investigated the effects on selected factors of (a) I.Q. levels (b) race (c) socio-economic status and (d) socio-economic groups based upon performance and gains in performance using standardized arithmetic test scores for 3,536 subjects attending an urban

Midwestern district schools between 1968 and 1971. Using analysis of covariance, statistical significant differences were found in the levels of performance on all factors.

Some authors (e.g., Kahl, 1965, among others) have shown that "the ability to delay gratification is related to socio-economic status, higher intellectual functioning and such family variables as father presence or absence and conditions of family disorganisation." The member from high social class do evidence high degree of motivation which accounts partly for their success in the educational and occupational world.

Although the above description suggests that overwhelming majority of study supports the view that socio-economic factors do play a very significant role in educational attainment but, this is not to suggest that the contradictory evidence is completely lacking. There are some findings, at least, which suggest that there is no definite relationship between the two sets of variables under discussion. For example, Bloom, Whiteman and Doutsch (1965) in interview with Negro and White parents and children found that more Negro than White parents wanted some college training and a higher occupational status for their children. Wellington and Wellington (1965) failed to observe significant difference between under-, and over-achievers and their socio-economic conditions. Similarly, Singh (1965) failed to observe significant relation between achievement of students and their

family income. Sinha (1970) also did not find any association between the parental income and academic achievement. A number of other investigators (e.g., Brockington and Stein, 1963; Carter, 1953; Frankel, 1964; Goldberg, 1960; Gough, 1949; Melton, 1955; Mishra, 1962; Mueller and Mueller, 1953; Nye, 1959; Passow and Goldberg, 1962 and Winter, 1961) also have not found positive correlation of social class characteristics with academic achievement. While most of them have found lack of relationship, some have found negative relationship as well. Astin (1964) and Nichols and Davis (1964) studied large groups of merit scholars who, when compared with non-scholars, tended to come from higher socio-economic status. But, the investigators found evidence to suggest that the difference in achievement was not because of difference in socio-economic status.

The status of the controversy seems to be well illustrated from Eckland's (1964) summary of the findings of 24 institutional studies on social class characteristics related to college performance. Some were one year studies, while others were two or four year studies. In the former case, 14 out of 16 studies showed the two variables unrelated. In the latter case, 13 showed positive relationship and 20 showed lack of significant relationship out of 50 studies.

Habitation:

Habitation may be an important factor in relation with academic achievement for several reasons. For one thing,

habitation may be a potential factor of social as well as economic deprivation. For example, pupils staying in rural areas generally suffer from social and cultural deprivation in comparison to urban pupils. It may also be argued that rural India has altogether a different type of culture and hence society. But, that may reinforce reasons for our decision to include this variable in our study.

Several studies point out to the distinct possibility of habitation as playing a determining role in academic achievement.

Pidgeon (1960) has described a national survey of the ability and attainment of some 10,000 children in the age range of 7 to 8 and 14 to 18. The survey compared, among others, the levels of attainment of boys and girls and of children attending schools in urban and rural areas and of various types, e.g., mixed, single-sex, all-age, voluntary, etc. Urban students obtained higher scores in comparison to rural children as also students of country schools scored higher than students of voluntary schools.

Subjects' environment was found to be closely related to their entry behaviours in physical and human geography (Okunrotifa, 1976). In urban environments, subjects were superior to subjects of rural environment in terms of entry behaviours in human geography. The reverse was the case for the entry behaviour in physical geography.

In Sinha's study (1970), a significantly larger percentage of low achievers came from rural areas, the figure being 62.11% against 46.5% for high achievers. Again, 51.35% high achievers belonged to cities as against 37.89% of low achievers. On this factor, Chi-square test proved highly significant. However, Joshi (1988) found that rural and urban students do not differ in academic achievement whereas Grewal and Singh (1987) found rural subjects showing significantly higher scores on academic performance.

Several investigators (e.g., Davies, 1963; Diener, 1960; Malleson, 1959; Mamma, 1950; Willingham, 1962) have tried to find out whether different residential conditions are in any way related to academic achievement. Needless to say that different investigators have reported different results. Malleson (1959), for example, found that students living in hostels and halls failed less than those living in lodges. Davies (1963) concluded that women were more affected by nature and conditions of living. However, Nasatir (1963) suggests that there may not be a simple one to one relationship between type of residence and achievement, rather characteristics of both students and residence interact and determine the scholastic performance. Hota (1986) conducted study to find out the relationship of school achievement and personality traits of three sub-cultures of the State of Orissa. The Indian version of 10 TAT cards were presented to 108 tribal school children, 100 rural school children and 92 urban school children. Among those subjects, 162 were boys

and 138 girls. Results indicated significant positive relationship between school achievement and conflict level, self-assertiveness and future outcome of subjects. A high degree of positive relationship was found between school achievement and self-assertiveness in urban area children, and between aggressiveness and school achievement (and relationship) in tribal area children. Besides high achievers and low achievers were found to differ significantly in their personality traits in all areas (tested) except in affiliation trait.

Mishra (1962), Sinha and Mishra (1961a; 1961b, 1963) made a series of studies, and analysis of their data revealed greater proportion of urban students in the high achiever group. Sharma (1972) concluded that there was no difference in the creatively levels of subjects belonging to two (urban Vs rural) areas. Usha Rani (1985) found that rural children had lower capability for figurative perception. Similarly, Tharakan (1987) observed in his study that urban males were more field independent than the urban females but sex differences did not affect the cognitive style of rural adolescents.

Cultural Factors:

There has been the usual crop of researches to study the influence of racial and cultural differences on academic attainment (e.g., Deutech, 1960; Kosa, Rachiele and Schommer, 1958; McQueen and Churn, 1960; Osborne, 1960; Snider, 1961). However, these variables require the closest control on

external factors, since such factors as educational opportunity, social norms, cultural and national wealth may play an over-riding part. Lewis (1960) studied the differences in attainment in English and Arithmetic courses between primary schools in Wales. Generally, the attainment of schools with pupils of a strong Wales background (i.e., bilingual pupils) was lower than that of other schools. This tendency was stronger in English than in Arithmetic. That means, a bilingual environment may be detrimental to language (English) attainment. However, previous investigations undertaken in Wales have yielded somewhat contradictory results.

Sperrazzo and Wilkins (1958) have presented an analysis of the variance of scores on Raven's progressive Matrices. The main variables in the analysis were age, sex, race and socio-economic status. Variance estimates for all the main variables were significant beyond .01 level of confidence. However, the fact that there was a significant effect for socio-economic interaction led the authors to the conclusion that the racial differences variation depends partly on non-race factors. In contrast, in a later article Jenson (1959) objected to this interpretation and concluded that, inspite of interaction effects, the race difference remains highly significant statistically.

Walters (1958) gave the Thurstone tests of Primary Abilities (PMA) and a specially compiled non-verbal test battery to Maori children aged 11 through 15 and to a control group of Newzealand children of European origin. The Maori

children were taken from three areas, the city of Auckland and town of Whangerei, the semi-rural area and from outlying areas. The three Maori groups differed so significantly among themselves that they could not be considered a single population for purposes of comparison with the control group. These differences appear to reflect the influence of educational, socio-economic, and adjustment factors. Generally speaking, the Maori groups did less well in comparison to the control group on the total non-verbal test than they did on the PMA.

Levinson (1960) investigated the patterns of native-born Jewish, Irish, and Italian boys matched for I.Q. (Wechsler's Intelligences Scale for children) and attending fourth, fifth, and sixth grades. There were statistically significant differences among the verbal and performance skills in favour of the Jewish group.

Osborne (1960) gave the California Achievement and Mental Maturity test three times to 815 White and 446 Negro children when they were in grades 6, 8 and 10. Reading and Arithmetic achievement differences between White and Negro groups increased progressively from the sixth to the tenth grade, with the greatest difference found on non-cultural test questions.

In a longitudinal type study 390 Whites and 113 Blacks studying in 9th grade in 1969 were compared with 324 Whites and 79 Blacks in 1974. "Wisconsin Model" of status attainment

proved less powerful in explaining Black than White attainments, socio-economic status origin having practically no explanatory power for Blacks. High school performance was a stronger predictor of attainment for Blacks than Whites (Kerckhoff and Campbell, 1977).

Some longitudinal studies have also been carried out to test the racial and cultural influence on educational attainments. Porter and Wilson (1965), for example, examined the main and interactive effects of racial differences on the basis of a 4-stage longitudinal (1966-70) sample of 1920 male high school students. Comparison between "Comprehensive" models of the attainment sequence between Blacks and Whites were made. Their studies revealed that Blacks had higher educational attainment than Whites of similar parental status and ability. This additive race effect disappeared, however, when the full set of intervening variables was considered. Race interactions were found to affect all endogenous variables.

Race was found to be a significant factor in mathematical achievement in a study by Yawkey and Jantz (1974).

However, on a slightly different footing, Lender and Ruiz (1974) observed that membership in a social class rather than racial group was the critical factor in determining current academic achievement, educational aspirations and belief in one's ability to control his environment. Sinha (1966) also did not find any influence of religion and caste

upon one's academic achievement. Similar were the findings of Crouch (1962) and McGillivray (1964). Bhadra and Girija (1984) tried to explore whether the high achieving scheduled cast/tribe differ from their low achiever counter-parts on several value dimensions. The groups differed significantly on 4 personal values (variety, decisiveness, orderliness and goal orientation) and three interpersonal values (conformity, indifference and benevolence).

Reissman (1962) described the disadvantaged children and their families as traditional, patriarchal, superstitious and religious. They are poor readers, suggestible and suspicious of new fangled ideas. They feel socially alienated. They are not individualistic, self-centred or self-expressive. They have a greater need of getting by than getting ahead. They are egalitarian, anti-communist, attracted to stronger leaders, prejudiced, intolerant, very much interested in family and personal comfort. They are informal, easy and comfortable. They are attracted to gossips and excitement. They are anti-intellectual and perform the manual labour best. They are also attracted to masculinity. Singh and Sinha (1986) studied the relative influence of social deprivation, intelligence, punctuality and caste on academic achievement of 150 male Indian 8 graders from scheduled and non-scheduled castes. Social advantage was seen to be directly related to school achievement. Social deprivation was a more potent predictor of achievement, punctuality and intelligence than was ethnicity (caste status).

In this context some recent studies on caste variable in India may be worth noting here. Sandhu (1986) applied analysis of variance only to arrive at a conclusion that scheduled caste and scheduled tribe students do not differ in their school performance. But, Pollard (1989) conducted the research on Black and White students and his results supported two ideas; (1) academic achievement for caste like minorities involves crossing cultural boundaries and (2) that achievement may be a facile way of coping with the stress. Educators should encourage these subjects, have high expectation from them, help them to solve problems, and reward them for their achievement efforts.

Following Robinovitch (1959), the socio-cultural determinants of academic under achievement can be roughly classified under the headings of motivation and opportunity. Able youngsters who are otherwise motivated to achieve in school may be prevented from realising their goals by socio-cultural factors that impede their learning or hinder their studying. Among the most widely publicized of these factors is the failure of elementary education to prepare youngsters adequately for high school and college work.

Even the youngster who has had the benefit of attending good schools may become inadequately prepared for educational advancement if illness or changes of school disrupt the continuity of his learning.

2. PERSONAL FACTORS AND HOME ENVIRONMENT:

Personal factors like birth-order and family size, father's occupation, father's education, father's absence, etc., combine to make the home environment. Studies show a positive correlation of .84 between the home-environment and school achievement (Bloom, 1981 and 1986). In this study some of the factors related to home environment were included. Pertinent literature related to these factors have been reviewed in the following pages:

Birth Order and Family Size:

Birth-order, number of siblings and over-all family size have been found to influence (in one way or the other) the academic performance of the children.

In most societies some individuals come to control great wealth to wield/yield enormous power, and to acquire coveted honours, titles, and privileges just by virtue of their position in the family. In fact, it was not until the turn of the century that this faith and the corresponding laws of primogeniture were challenged. At this time, geneticists, pathologists, and psychologists began to explore the question from a variety of perspectives, and indeed, the first studies appeared to provide empirical substance for the belief in the superiority of the eldest (for example, Ellis, 1904; Galton, 1874; Giri, 1915). For example, Cattoll and Brimhall (1921) published their observations on

the birth rank of scientists and concluded that the first born is to be found in greater frequency among scientists than the later born, and that this over-representation occurs for all family sizes. Ansari (1979) found ordinal position significantly associated with executive success. He observed that highly successful executives were generally first in birth order.

With continued attention to this question, however, contradictory results soon began to appear. Thurstone and Jenkins (1929) examined a large number of children and concluded quite explicitly:

"On the whole the later born siblings tend to be on the average brighter than the first-born. Not only does this seem to be the case in the comparison of the first-born with the subsequent children, but the rise in intelligence with the order of birth seems to continue as far as the eighth-born child."
(p.649)

In the subsequent study, Steckel (1938) substantiated Thurstone's results.

Other studies followed. Some reported increments with birth order, some decrements, and several failed to find any relationship. Nichols and Davis (1964) found that high achievers had fewer siblings and themselves older than others. Srivastava (1966) found under achievers significantly belonging to large family size with large number of siblings and middle born in birth-orders.

But, in the studies of Sinha (1966) and McGillivray (1964) family size did not seem to have any effect on the academic achievement.

In a sample of 306 girls and 247 boys from large and small families in 4 suburban Boston communities it was found after controlling for I.Q. that boys from small families tended to have better grades than those from larger families. First-born girls had higher academic achievement than latter-born girls. Thus, a sex-specific pattern of relationship between family constellation and academic achievement appeared. It is suggested that first-born girls are more likely to develop patterns of responsibility and hard work which help them academically (Nuttall et al., 1976).

Jones and Seabome (1974) compared the American and British findings related to birth-order and the bearing on college attendance and arrived at results which were at variance with those of similar American studies.

Januar (1963) and more recently Pillai and Ayishabi (1984) and Hauser & Sewell (1985) could not get any significant relationship between achievement of students and their position in the family.

Forbes (1974) found no relationship between birth-order and attendance in or successful completion of an adult continuing education course among severely disadvantaged adults. Jones and Seabome (1974) also could not find any relationship between

the two variables; birth-order and college attendance.

Among other studies that found decreasing intelligence or scholastic scores with birth order were those of Atlas (1963), Bayley (1965), Breland (1974), Belmont and Marolla (1973), Lunneborg (1968, 1971) and Schachter (1963). Increases in intelligence scores with birth-order were reported by Arthur (1926), Commins (1927), Hill (1936), Koch (1954) and Willis (1924). In a study of Hsiao (1931), some samples showed a positive relationship with birth-order and others a negative relationship. And Bayer (1966), McCall and Johnson (1972) failed to find any relationship whatever between birth-order and intelligence. The latter authors suspected, in fact, that the correlations of I.Q. with birth-order approach zero "in those studies where more careful attention is given to sample design and to subsequent controls" (p. 208). The research literature on birth-order appeared so confused that one serious reviewer was prompted to declare birth-order unworthy of further research efforts (Schooler, 1972).

In contrast to the inconsistencies among the birth-order data are the results on the intellectual consequences of family size (Terhune, 1976).

This, then, is the birth-order-puzzle. Why is the effect of family size such a consistent one, showing itself over and over again in the literature, while at the same time the effect of birth-order -- a closely related factor -- presents such a chaotic picture? The birth-order problem is especially

trouble-some, for none of the variables examined in the literature can organize these results into an orderly set of generalizations. For example, the suspicion that birth-order effects are found primarily on verbal proficiency tests is seriously undermined by the strong effects found also with Raven Progressive Matrices Test (Belmont and Marolla, 1973). The possibility that socioeconomic factor may mediate these effects is dispelled by several (e.g., Institut National d'Etudes D'émographiques (INED), 1973; Claudy, 1976) showing parallel effects for a variety of socio-economic status categories. Cohort effects, too, are soon ruled out as a possibility because Galton's cohort of the 19th century showed effects not different from those of the much later cohort examined by Cattell and Brimhall (1921) nor from those of the most recent cohort of high school senior examined by Claudy (1976).

A recent analysis of intellectual development may supply a solution to the birth-order puzzle. A model termed the confluence model (Markus and Zajonc, 1977; Zajonc and Markus, 1975) was developed to explain a large body of intelligence data published in 1973 by Belmont and Marolla. These data on birth-order and family size exhibited five important features: (a) intelligence scores declined with family size; (b) within each family size they declined with birth-order; (c) if the last child was ignored, the decline with birth order seemed to be decelerated; (d) the decelerating, birth-order trend was not followed by the last child, who showed a discontinuous drop in intellectual performance;

and (e) the only child, too, showed a discontinuity in that if the family factors were systematically negative in influencing I.Q. the only child should have had the highest average of all, which was not the case. The confluence model was constructed to reflect these features of the Belmont-Marolla data, and it has been refined since its original publication to accommodate new data.

Zajonc, Markus and Markus (1979) studied this problem of birth-order puzzle and suggested that at the time of a new birth, two opposing influences act upon intellectual growth of the elder sibling: (a) his or her intellectual environment is "diluted" and (b) he or she loses the "last-born's handicap" and begins serving as an intellectual resource to the younger sibling. Since these opposite effects are not equal in magnitude, the differences in intellectual performance among birth ranks are shown to be age dependent. While older children may surpass their younger siblings in intellectual performance at some ages, they may be overtaken by them at others. Thus, when age is taken into consideration, the birth-order literature loses its chaotic character and an orderly pattern of results emerges.

All these controversies, nevertheless, suggest for continued studies on this line.

Parents' Occupation:

Occupational status is generally a product of the educational level. Naturally, it has been found to influence

educational attainments. There are research reports which support the view that high achievers tend to come from top occupational groups of business and profession (Terman and Oden, 1947; Cole Jr., 1956; Bond, 1957; Klausmeier, 1958; Hopkins, Sarnoff and Malleson, 1958; Slocum, 1958; Westfall, 1958; Burchinal, 1959; Chapman, 1959; Frankel, 1960; Shaw, 1960; Wing and Ktsanes, 1960; Shaw and Dutton, 1962; Roberts, 1962; Jamuar, 1963; Hewer, 1965). Similar are the findings with regard to mothers' occupation (Frankel, 1960, 1964 and Shaw, 1960), though Brog (1983) believed that child's failure at school will not be regarded as the failure of the educational system but rather as the failure of the working class mother. Parents' occupations in which there is value and use of education, are expected to have favourable effects on educational progress and performance of their children.

Gordon (1959) found that the family of underachievers and overachievers differed. The overachievers' parents tended to be employed mainly in professional, managerial, proprietary and official occupation. Similarly, fathers' occupations were significantly and positively related to the academic achievement of students in studies conducted by Briggs, Johnson and Writ (1962), Ford (1957), and Singh (1965). Hewer (1965) identified nine social groups on the basis of fathers' occupations and parental education and found that the college grades could be efficiently predicted on the basis of those social groups. Similarly, Jamuar (1963) found significant relation between achievement and fathers' occupations.

Klausmeier (1958) observed that high-achievers were superior in the occupational level of their parents. Griffiths (1959) found children of persons of low category of profession scored lower in a grammar school.

After a three year interval, Sampson (1959) retested 50 five-year old children in order to trace their speech and language development and found that every child had made progress in keeping with his family's occupational status as well as his own general intelligence.

A large scale survey carried out by Jones (1959) also took into account the influence of parental occupation. The findings indicated that whereas monoglot and bilingual groups which vary in occupational class also differ in non-verbal intelligence, corresponding linguistic groups of comparable socio-economic status do not differ significantly in this respect. It is, therefore, concluded that bilingualism per se need not be a source of intellectual disadvantage. Belz and Geary (1984) found fathers' occupation to be associated with quantitative and verbal SAT (Scholastic Aptitude Test) scores.

There are some negative findings as well. Wellington and Wellington (1965) failed to observe any significant relationship between students' achievement and their parental occupational status. Similarly, McGillivray (1964), and also Sinha (1966), could not find any difference between the high and low achieving groups with respect to parental occupational level.

Frankel (1964) and Shaw (1961c) found that mothers' employment was significantly related to under-achievement of students.

In this regard Bledsoe (1959) has demonstrated an inverse relationship between the likelihood of a youngster dropping-out of high school and the amount of schooling his parents had received. His observation was that children of unskilled, unemployed or retired parents drop-out in disproportionately high numbers in comparison to children of professional, managerial, sales and clerical workers.

Sinha (1970) made an analysis according to the parents' professions. His results were as follows: (i) about one-fourth of the sample in each group had stated their fathers' profession to be agriculture, the figure being slightly higher for the low achievers; (ii) the high and low achievers of parents in government service did not differ from one another; (iii) more than 10% among the high achievers had teacher parents as against about 7% in the low achieving groups; (iv) in the business category, about 4% more belonged to the low achieving group; (v) little over 4% of high achievers had their fathers in low profession as against about 10% of the low achievers. In brief, Sinha's study yielded small differences and only certain general trends of relationship between parental professions and academic achievements of the students can be inferred.

Fathers' Education:

Among the different indices of socio-economic status, education of parents is expected to be more important than

others in this regard, because educated parents are expected to place high value on education. In fact, numerous studies (for example, Sarma, 1984) of the development of talent show that it most frequently appears in homes where parents themselves are well educated and emphasize the "life of the mind" (Barbe, 1956). Several investigators (e.g., Terman and Oden, 1947; Pearlman, 1952; Ratchick, 1953; Granzow, 1954; Hopkins, Sarnoff and Malleson, 1958; Westfall, 1958; Burchinal, 1959; Chapman, 1959; Shaw, 1960 and Wilson, 1963) have found that under-achievers tend to come from homes where parents have less education than the parents of high achievers. Not only they are less educated, but their values also tend to be either neutral or negative with respect to education, while parents of achievers tend to value education positively (Barrett, 1956; Marrow and Wilson, 1961). Even a simple measure like number of books in a home has shown significant difference between high-, and low-achievers (Gowan, 1957; Hobbs, 1960). Besides, such parents who value education, expect and demand more from their children; and, as held by some (e.g., McClelland et al., 1953; Winterbottom, 1953) parental demands help the development of achievement motivation. Hence parental demands are found to be positively associated with academic achievement (Kurtz and Swanson, 1951; Rosen and d'Andrade, 1959). The parents of under-achievers not only demand less but they also demand at a later date than the parents of achievers (Draws, 1957; Winterbottom, 1953). It is also likely that the demands made by parents of achievers are more specific. All these show the importance of value placed on education and

achievement by parents. This is more likely to be true of educated parents.

Gordon (1959) found that the family of under-achievers and over-achievers differed, the over-achievers' parents tended to have some formal education and to be employed mainly in professional, managerial, proprietary and official occupations, and similar findings were also obtained by Ford (1957). Briggs, Johnson and Writ (1962) and Singh (1965) also found fathers' education and occupation as significantly and positively related to the academic achievement of students. Barger and Hall (1965) had also shown that parental education and occupational status to be conducive to high academic achievement. Hewer (1965) identified nine social groups on the basis of fathers' occupation and parental education and found that the college grades could be efficiently predicted on the basis of those social groups.

But Wellington and Wellington (1965) failed to observe any significant relation between students' achievement and their parental education. Similarly, McGillivray (1964) and Sinha (1966), however, could not find any difference between the high-, and low-achieving groups with respect to parental education.

3. MOTIVATIONAL FACTORS:

Achievement Motivation:

Motivation has long been recognised as a primary factor in any performance or achievement. But empirical studies have

not been able to demonstrate its value in academic achievement consistently. Various techniques like rating scales, questionnaires, and projective tests have been used to measure the achievement motivation (n-Ach) of students.

Those (e.g., Frandsen and Darke, 1935) who have used teachers' rating of students' motivation, have found motivation to be significantly and positively related to academic achievement. But the findings of such studies are of doubtful value because students' achievements might have influenced the teachers' ratings of their motivation.

A good number of investigators have used questionnaires or paper pencil tests. Among them, the Edwards Personal Performance Schedule (EPPS) is the most frequently used tool. Several studies (e.g., Bendig, 1958a, 1958b; Gebhart and Hoyt, 1958; Krug, 1959; Weiss, Wertheimer and Groesbeck, 1959; Goodstein and Heilbrun Jr., 1962; Heilbrun Jr., 1962, 1963; Izard, 1962; Kazmier, 1961; Lang, Sferra and Seymour, 1962; McDonald and Gynther, 1963), in which the EPPS has been used, indicate a positive association between n-Ach. and scholastic performance.

Data obtained by Reddy (1987) indicated positive correlations for self confidence and need for achievement and also for self-confidence and academic achievement. There was also a small but significant linear relationship between need for achievement and academic achievement.

Quite a few other studies, however, do not support this finding. Merrill and Murphy (1959), for example, did not find significant differences between over achievers and normal achievers on the n-Ach scale of the EPPS, though they did find that the two groups had different patterns of needs. In Bendig's (1958c) study the n-Ach scale of EPPS yielded low positive correlations with two measures of academic achievement. Similar are the reports of several other studies (e.g., Bachman, 1964; Demos and Spolyar, 1961; Shaw, 1961; Uhlinger and Stephens, 1960).

Besides the above scale, some structured tests, and some unstructured tests have also been used to measure achievement motivation. Strong Vocational Inventory Blank (Strong, 1943) has been considered by some as a promising measure of motivations. A low occupational level (OL) score on SVIB is supposed to indicate lack of "staying power" or "survival power" in college competition. But, while Kendall (1947) and Ostrom (1949a) found the OL score to be related to academic achievement, some others (e.g., Berdic, 1944; Gustad, 1952; Ostrom, 1949b including Strong, 1943, p.201) did not find it to be so.

Divesta, Woodruff and Hartel (1949) on a sample of agriculture students and Gough (1953) on a sample of 5 different high school classes found that high motivation was associated with high academic achievement.

McClelland and his associates have favoured ambiguous pictures for the purpose of assessing achievement motivation. A number of studies (e.g., Applezweig, Moeller and Burdick, 1956; Atkinson, 1958; Bendig, 1958c; Cole *et al.*, 1962; Lowell, 1952; McClelland, 1955, 1961; Ricciuti, 1955; Ricciuti and Sadacca, 1955; Shaw, 1961; Veroff *et al.*, 1960; Chahbazi, 1960; Weiss, Werthelmer and Groessbeck, 1959 etc.) on this line have been reported. Not all but most of these studies indicate a positive relationship between achievement motivation and academic achievement. Smith (1964), for example, did not find *n*-Ach, as measured by the French Test of Insight, to be significantly related to grades earned.

The relation of achievement motivation to academic achievement is reflected, sometimes indirectly, in several other studies, not primarily connected with the measurement of *n*-Ach (Hopkins, Samoff and Malleson, 1958). McQuarry (1954) also found that under-achievers, more likely than over-achievers, went to college for social enjoyment or prestige. Similarly, the findings of several studies (e.g., Davids and Sidman, 1952; Holland, 1961; Holland and Astin, 1962; Nichols and Holland, 1963) indicate that while low achievers believe in immediate gratifications, high achievers believe in differed gratifications.

To sum up, most of the studies demonstrate a positive relationship between achievement motivation and scholastic

performance, but the obtained correlations are generally low. Yet, since several studies report adverse findings there is ample scope for consistent effort by scholar in this field to go on explaining the area until a definite relationship is finally established.

Singh (1965) and Srivastav (1966) found under-achievement to be significantly related to academic motivation. Litting and Yeracaris (1963) observed that n-Ach was positively related to academic achievement among men but not among women. Achievement motivation had been found to be a significant factor in the academic performance of students in several other studies as well (Caplehorn and Sutton, 1965; Esther, 1966; Gebhart and Hoyt, 1958; Goodstein and Heilbrun, Jr., 1962; Kight and Sassenrath, 1966; Krug, 1959; Morgan, 1951, 1952; Reiter, 1964). But studies by Bachman (1964), Burdick (1956), Gibbs (1966), Lowell (1950, 1952), Merrill and Murphy (1959), Parrish and Rethlingshafer (1954), Cradall, Katkovsky and Preston (1962), Sarason (1963), etc., did not show encouraging results in this regard, Heikkinen (1957) observed that the relationship between achievement motivation and academic performance was not linear and personality of the individual should be taken into account in considering motivation and achievement.

Muthayya (1964) confirmed the results obtained by McClelland and his associates (1953) that high and low

achievers differed significantly in their n -Ach scores. Similarly, Hopkins, Mallison and Samoff (1958), Lang, Sforra and Seymour (1962); and Todd, Terrell and Frank (1962) found the two groups, high and the low achievers, differing significantly in their achievement motivation but Whitelay and Hummell (1965) and Smith (1964) observed no differences in n -Ach scores of achievers and under-achievers. Shaw (1961b) administered three n -Ach scales -- the French and the McClelland n -Ach scale and the Edwards Personal Preference Schedule, and found that none of these differentiated achievers from under-achievers significantly.

It is relevant, in our context, to mention that some studies have shown that achievement motivation is associated with socio-economic status of the pupil (Brembeck, 1966; Cameron and Storm, 1965; Crockett, 1962; Douvan, 1966; Ellis, 1969; Kagan and Moss, 1959; McClelland, 1961; Milstein, 1956; Roberts, 1972; Rosen, 1961; Shrivastava and Tiwari, 1967; and Veroff, 1960). Sowaid, Singh and Singh (1987) examine the relationship between parental attitudes toward the children and achievement motivation in the children in a sample of 84 lower socio-economic status pupils. Results showed that restrictive and protective attitudes of parents were inversely related to the childrens' achievement motivation.

Mehta (1967) found n -Ach having a low but significant positive relationship ($t = 0.12$ to 3.23) with the total school marks. However, the relationship was found to be erratic as it showed positive relationship at a place and negative at another.

In a study by Chadwick, Bahr and Strauss (1977) an attempt was made to identify 5 factors: self-concept, achievement motivation, anti-Indian discrimination, cultural conflict and family instability, affecting the academic performance of Indian students. Their impact on academic performance was assessed among 147 Indian high school students at Seattle, U.S.A. Analyses suggest that achievement motivation and cultural conflict are the most important correlates of academic achievement among urban Indian students, and it is recommended that these serve as target variables in programs designed to improve academic performance. Atkinson (1958) has proposed a theoretical model to explain how the motive to achieve and motive to avoid failure influence behaviour in any situation where performance is evaluated against some standard of excellence. The major implication of the theory is that performance level should be greatest when there is greatest uncertainty about the outcome i.e, when subjective probability of success is .50, whether the motive to achieve or the motive to avoid failure is stronger within an individual.

An independent measure of motivation and a performance test were given under three different verbally created conditions of achievement motivations relaxed, task motivated, and extrinsically motivated (Elizabeth, 1935).

The results consistent with hypothesis proposed showed that

- (a) Performance scores were more closely related to motivation scores than to the experimental conditions;
- (b) Performance scores in one situation tended to be most closely related to motivation scores in another when the situations presented similar motivational cues; and
- (c) In addition, when affiliation cues were more prominent in the situation than achievement cues, performance was related to affiliation motivation scores rather than achievement motivation score.

Schroth (1987) has conducted the study entitled "Relation between achievement related motives, extrinsic conditions, and task-performance." On the basis of their study, they concluded that the extrinsic task orientation condition could lead to higher n-ach. score than the neutral task orientation condition on the T.A.T. as well

as on the Work and Family Orientation Questionnaire. On the n -ach. scale, scores were positively related to task performance only. Additional results suggested that n -ach. comprises different independent dimensions rather than single global trait. Sex difference were also observed.

Contractor (1986) has also done a research to investigate the relationship of sex and academic performance with need for achievement. It was concluded that:

1. Academic performance of secondary students was not related with n -Ach. as measured by T A T;
2. High achieving and low achieving boys do not differ significantly from their girl counterparts.

Mohan and Banth (1986) have done a study on a comparative study of the motives of post-graduate students of Science, Arts, and Language Faculties. The results were as follows:

- (1) Science students scored highest on n -Ach. followed by arts and language students.
- (2) The language students scored highest and science students lowest on need for affiliation.
- (3) The arts students scored highest on need for power followed by science and then language students.

Verma and Ghadially (1985) have studied the effect of mother's sex role attitude on need for achievement and expectancy for success of their children. The research concluded that:

Children of modern mothers have higher need for achievement than of traditional mothers.

Academic Motivation:

Even from a layman's point of view, it appears logical to think that Academic Motivation should be a necessary ingredient for real academic achievement. Such a presumption has been supported by some studies as well. For example, Srivastava (1976) administered an academic motivation inventory with 2 parts, self-concept of academic ability (SC) and importance attached to academic achievement (IA) to under-, over-, high-, and low-achievers (UA, OA, HA and LA). Each group composed of 150 male students between 14 and 16 years of age range reading in 10th and 11th grades of high schools in the State of Bihar. Analysis of variance indicated significant differences between groups on SC, IA and the combined composite scores. The order of scores of the various groups on these measures were as follows: HA, OA, UA, and LA. No significant differences between HA and OA appeared but all other inter-group differences were significant. Pearson's r between SC and IA, though higher for UA and OA, were significant ($p = .01$) for all groups. The combined composite scores of all the groups were significantly

related to achievement scores, but not to intelligence scores.

Academic motivation has also been equated with the motivation to study a particular subject (choice for a subject). Khan (1987) studied, what he called, subject motivation, to ascertain the extent to which the students perceived their science subjects as understanding, encouraging, enjoying, and other aspects such as curiosity, involvement of practical work, hardwork and reasoning involved, real nature and entrinsic value of the subject and their (these variables) capability to motivate them (students) to study science subjects. The sample consisted of 342 males and 158 females in the age group of 16 to 17 years belonging to 13 Nigerian secondary schools. The results showed absence of any statistically significant difference between a pupil's subject motivation and his academic performance. Khan suggested that this might have happened because may be that subject motivation of a student be dependent on several factors other than their ability in that subject.

Krishna and Agrawal's (1978) sample of school high achievers (HA) scored significantly higher on academic motivations ($t = 2.23$, df 29, $p = .05$) than the low achievers (LA). They also applied Pearson's r to their data and found academic achievement significantly and positively related to academic motivation ($r = .286$, df 148,

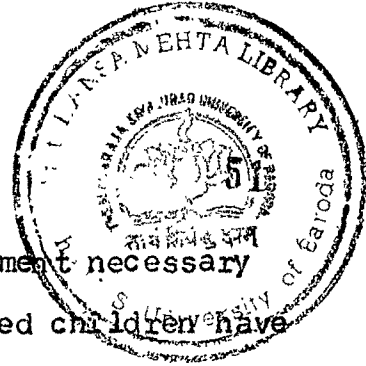
$p = 0.01$). Similar result was obtained by Saur, (1985).

4. PERSONALITY FACTORS

Pupils' Orientation:

Bass (1965) made a more radical approach to personality. In his studies of organizational workers he formulated that a worker need not ^{be} studied with reference to any "basic" catalogue of needs and tensions, but in terms of his contemporary "functionally autonomous" and "organizationally relevant" motivational orientations. Bass proposes three such orientations: task-orientation, self-orientation and interpersonal-orientation. He has developed an instrument for the measurement of these orientations. In the past few years, Bass and others who have used this Orientation Inventory (Bass, 1965; Bass and Dunteman, 1963; Bass and Dunteman, 1964; Bass, Dunteman, Frge, Vidulich and Wambach, 1963; Brown and Dube, 1965; Dunteman and Bass, 1963; Stimpson and Bass, 1964) have found individual differences in tasks-, self-, and interpersonal orientation. These orientations have been found to be associated with other personality variables (including competitiveness, flexibility, and need affiliation) as well as with occupational choice, quality of task performance, conformity behaviour and reactions to different leadership styles.

Motivational variables refer to those learned attitudes which maintain the task-orientation of the



individual and retain task relevant involvement necessary for achievement (Miller, 1968). Disadvantaged children have been found to maintain very low level of motivation which stands in their way for further progress. John (1963) maintains that lower class individuals do not consider education as means for upward mobility. It is not because that they devalue education but they do not expect to rise too far in the occupational world. All the more, since achievement of primary school level is rarely accompanied by any immediate concrete reinforcement to satisfy their basic needs, they feel less enthusiastic. Since they prefer to work under concrete rewards over more abstract reinforcement in learning tasks (Terrel, Durkin and Wiese, 1959), high rate of stagnation and drop-out cases of primary school level should not be considered very astonishing. They have a preference for immediate reinforcement over delayed reinforcement even when they are assured of greater rewards under delayed condition (Kahl, 1965). Le Shan (1952) has also found that disadvantaged children are more present oriented. Willot's (1963) study on secondary school children revealed the importance of orientation, family background, adaptation to studies and particularly, the method of teaching on their academic success.

The aforesaid clearly spells out the fact that much study in this area has been done. But, whatsoever the little amount of study have been reported, they clearly point out the possibility that there is some relationship

between the orientation of the pupils and their such family background as socio-economic status or their cultural background, with their academic achievement. Due to such possibility only this variable was chosen as an element of study in present investigation.

Singh, (1980) studied the self-orientation, task-orientation and interaction-orientation of high-, and low-achievers of high school going children of 3 caste groups (high castes, backward castes and scheduled castes). His results indicated that:

- (a) When the achievement level was ignored, the 3 caste groups did not differ among themselves for their self-orientation scores;
- (b) High achievers of all caste groups were more task-oriented than their low achievers;
- (c) When the achievement level was ignored, the 3 caste groups did not differ among themselves on their task-orientation scores; and
- (d) No significant mean difference for scores on interaction orientation was obtained either for high-, and low-achievers of the 3 caste groups or across the 3 caste groups themselves when their achievement level was ignored.

Other 4 kinds of orientation studied in the present study were peer-orientation, independence-orientation,

conformity-orientation and achievement-orientation. These orientations have also been called affiliations by Ringness (1967, 1970). In one study, Ringness (1967) examined the various identification patterns and orientations and came to the following conclusions:

- (a) Scholarship had little relationship with peer-orientation.
- (b) Low achievers were more peer-oriented than high achievers.
- (c) High achievers scored higher on achievement - independent and autonomy-orientation.
- (d) Low achievers were more non-conforming than others.

In another study, Ringness (1970) tried to examine the subjects' degree of identification with parents, teachers, and peers in order to assess their impact on school achievement. A Card Sort assessed four orientations. The following results were obtained:

- (a) Peer-orientation was found to be most closely related to subjects' achievement-orientation.
- (b) Achievement-orientation was also highly correlated with school achievement.
- (c) No significant difference was obtained between subjects' achievement orientation and independence orientation.
- (d) Peer-orientation was also negatively correlated

with non-conformity and independence orientation.

Patel (1979) studied the talented boys and girls to compare them with average boys and girls on various factors including the four orientations of peer-, non-conformity, achievement-, and independence orientation. He obtained the following results:

- (a) Non-conformity orientation was negatively and significantly correlated with academic achievement and self achievement value of average and below average girls as well as below average boys. It was not significantly correlated with academic achievement, self achievement value and motivation of talented and average boys as well as talented girls. Non-conformity was also negatively and significantly correlated with motivations of boys of below average talent.
- (b) Peer-affiliation orientation was significantly correlated with academic achievement, self-achievement value and motivation of below average girls but it was not significantly correlated in case of below average boys and average girls. It was negatively and significantly correlated with academic achievement of talented boys and girls and with motivation of talented girls.
- (c) Independence orientation was significantly correlated with academic achievement, self

achievement value and motivation of below average girls, but it was not correlated in case of below average boys or in case of talented boys. Independence orientation was significantly correlated with academic achievement of talented and average girls. It also correlated significantly with self-achievement value of average boys and girls. Its correlation with motivation was significant and positive in case of average boys.

- (d) Non-conformity orientation was negatively correlated with academic-achievement as well as with self-achievement value of the average and below average subjects, but its correlations in case of talented subjects were not significant. This shows that average and below average subjects with high achievement value as well as academic achievement possessed a strong tendency to conform whereas the talented subject were neither inclined to conform nor to become rebellious.
- (e) Peer affiliation orientation failed to correlate significantly with self-achievement value of both urban and rural subjects. It was negatively and significantly correlated with academic achievement of the talented subjects of urban and rural background, but it was not correlated with academic achievement of average and below average subjects of urban and rural residence.

Risk-taking and Confidence of Judgement:

It goes well with common sense argument that individuals with greater amount of risk-taking ability and having more confidence in their judgement are the individuals who perform better (achieve higher) in almost all walks of life. It may be true with or without taking into account their (risk-takers') need for achievement. Kogan-Wallach formulation generates prediction concerning such dependent variables as (i) success of complex task, and (ii) the presence of unusual shift in aspiration level following success or failure (Alkar, 1967), without recourse to the concept of n -Ach.

The Kogan-Wallach (1964) formulation about individual risk-taking makes a central distinction between motivationally and cognitively determined risk-taking behaviour. The cognitive risk-taker (who is operationally identified as a low scorer on both test-taking anxiety and defensiveness measures) discerns the features of a particular task relevant to successful performance. The motivationally determined risk-taker (who is high on both test-taking anxiety and defensiveness) searches primarily for different cues. The latter concerns himself not with the task itself but with the positive interpersonal evaluation he requires in order to avoid failure. This is not to suggest that the motivational or the cognitive risk-taker, as a consequence of these orientations, is necessarily conservative or risky.

The difference between them resides in the consistency with which they employ their preferred risk-taking strategy. The motivationally determined risk-taker is consistently risky or consistently conservative. His concern with anticipated evaluation leads him to ignore whether or not particular task requires skill or only luck. The defenciveness of this concern also leads him to ignore whether different risk-taking strategies are differentially successful on a particular task. These consistency may disappear if the experimentalist differentially approves different risk-taking strategies on different tasks. The cognitive risk-taker, on the other hand, to the frustration of those seeking convergent validity from different measure of risk-taking, do not exhibit a consistent risk-taking orientation across various tasks. His choice of strategy will depend on the expected success, in a particular case, from a given strategy.

The contrast between motivationally determined and cognitively determined risk-taking processes to a more general contrast between irrational and rational risk-taking in the Kogan-Wallach formulation, manifest itself when past decisional process are taken into account. Motivational or irrational risk-takers react to the failure of a risky strategy, initiating on their satisfaction with that strategy. Cognitive or rational risk-takers, on the other hand, when faced with failure of risky strategy, react by expressing dissatisfaction with the outcome and indicate a

desire to try a more conservative approach. Following these predictions significantly more variance ($p = .05$) were obtained (Alkar, 1967) in the responses of a sample of 96 high school boys than to comparable predictions from need achievement theory might yield. The interpretation stresses a distinction between merely trying hard and learning from one's mistake. Male subjects, high on n -Ach and low on test-taking anxiety, were found to perform more successfully. They preferred intermediate risks and changed their levels of aspiration following success or failure so as to select tasks of intermediate difficulty. Moreover, they had preference for achievement related tasks over the tasks providing no relevant incentive for the achievement motive. Failure threatened those subjects who were, in contrast to achievement oriented subjects, low on n -Ach and high on test-taking anxiety; exhibited systematically different behaviour. They are not very successful, avoid intermediate risk in static and sequential risk-taking, and do not persist at achievement relevant tasks.

A theoretical model to explain how the motive to achieve and the motive to avoid failure influence behaviour where performance is evaluated against some standard of excellence has been presented by Atkinson (1957). The model assumes that the incentive value of success is a positive linear function of difficulty as inferred from the subjective probability of success; negative incentive value of failure is assumed to be a negative linear function of difficulty.

The major implications of the theory are: (a) performance level should be greatest when there is greatest uncertainty about the outcome (for example, when subjective probability of success is 0.50), but (b) persons with stronger $n = Ach$ should prefer intermediate risk while persons with stronger motive to avoid failure should avoid intermediate risk and prefer (instead) very easy and safe undertakings of extremely difficult and speculative undertakings.

There have been a large number of studies on risk-taking behaviour using background (Cohen, 1960; Wallach and Kogan, 1961, Bass, 1964, Slovic, 1966; Ansari and Ahmad, 1977) and personality variables (Rini, 1963; 1964a; 1964b; Crandall, 1965; Flanders and Ihistlewaite, 1967; Singh, 1970; Ansari and Ahmad, 1977; Krishna, 1981a, 1981b).

A number of studies (e.g. Clausen, 1965, Suchman, 1950) show that the confidence level has an important bearing in risk-taking. The findings of Wallach and Cogan (1959) showed that females were highly certain, less frequently than males, but when they were certain they were more willing to take greater risks. On the basis of above findings Krishna (1972) hypothesized that those scoring high on confidence dimension will tend to be more risk-takers than those scoring low on this dimension. However, his findings were contrary to the findings reported by Wallach and Cogan (1959). Neither the subjects of the two sexes of his sample differed in terms of their C - J scores, nor the C - J scores succeeded

in discriminating the high and the low risk-takers. The findings failed to substantiate his hypothesis.

A series of researchs over a period of four years conducted at the University of Oklahoma (1952) showed that an over-achiever is characteristically more self-aware and willing to take responsibility. On the other hand, an under-achiever is guided by mutually contradictory motives and is not aware of their conflicting nature. The investigators concluded that intellectual variables can function effectively only when the personality function is properly integrated. It is obvious that the research findings have been inconclusive. Hence, a fresh attempt is needed to examine these variables in the Indian settings. That is one of the reasons for including this variable in the present study.