CHAPTER V

DISCUSSION
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Variations of cognitive functioning, affective adjustment and academic achievement had been tested for significance by group types, class and sex, and the interactions among these. These are discussed below:

1. Cognitive Functioning

The variations in cognitive functioning had been assessed on two aspects: (a) Cognitive styles (b) Conservation of number, quantity, area, length, volume and composite cognitive development. The following four hypotheses were tested:

H1: Three groups, e.g., tribal children in tribal schools, tribal children in integrated schools and non-tribal children in integrated schools will vary significantly in their cognitive functioning.
H2: There will be significant effects of class on cognitive functioning of children in all groups.

H3: Male children will differ significantly from female children on cognitive functioning.

H4: There will be significant interactional effects of group type, class and sex on cognitive functioning.

GROUP TYPE DIFFERENCES:

(A) Cognitive Styles:

As evident from the results, the three groups in two different school settings are significantly different on cognitive style scores. The tribal children in tribal schools, tribal children in integrated schools and non-tribal children in integrated schools adopt significantly different cognitive styles. Some groups adopt field-independence cognitive styles more frequently than others. The group differences in cognitive styles may be due to the differences in two school conditions or due
to different socio-economic and cultural background of the children. Berry (1975) in his research suggested that the quality of schooling would be a potent factor differentiating among children on cognitive styles. Ghosh and Masse (1978) also observed the significant effect of school conditions on cognitive styles. Further, the analysis (reported in Table - 19) indicates that tribal children in integrated schools showed more independent cognitive styles than the tribal children in tribal schools. The more field-independent cognitive styles of tribal children in integrated schools might be attributed to the classroom interactions with non-tribal counterparts in integrated schools. The interactions among tribal and non-tribal children in integrated schools could perhaps help the tribal children in acquiring better skills to solve cognitive style tasks.

The non-tribal children did not differ significantly from their tribal counterparts in integrated schools on cognitive style scores (reported in Table - 19). It appeared that group differences do not affect the cognitive style
scores of the children if school conditions are similar type. Karp, Silberman and Winters (1969), in two studies (reported together) one on lower and middle class boys and the other on lower and middle class adults, did not observe significant differences in cognitive styles. Bowd (1974) found no significant correlation between cognitive styles of the socio-economically advantaged and disadvantaged groups. Sinha (1979) reported that the effect of caste membership was not significant on cognitive styles. Majeed and Ghosh (1979) found that there was no significant difference in cognitive styles of Muslim, high caste Hindu and Scheduled Caste. Similar results were reported by Mishra and Tripathi (1980), Puspa (1981), and Sharma and Tripathi (1982). It might be argued that though the tribals and non-tribals differed in SES, socialisation experiences and traditions do not necessarily lead to differences in cognitive styles.

Some researchers have however reported that there are differences in cognitive styles because of differences in SES. Miller (1970),
Ghuman (1977), MacEachron and Greenfield (1978), and Cerchin and Pizzameiglio (1978) found significant SES differences on cognitive styles. Witkin (1962), DYK and Witkin (1965), DYK (1969), and Witkin (1969) reported that differences in levels of cognitive styles are related to differences in socialisation experiences in the process of development. Further, Zadik (1968), Dershoweitz (1971), Ramirez (1974), Witkin (1974), and Park and Gallimore (1975) presented evidence to demonstrate that traditionalism is associated with social conformity and this fosters field-dependence in the cognitive style.

Despite the contradictory findings it seems plausible to argue that the school as a social institution provides a comparatively novel and rather strange environment for tribal children. They may face problems of adjustment in different social situations and foster different cognitive styles. But group membership, such as tribals and non-tribals, might not really affect the cognitive styles of the children in an integrated school setting. It
might be concluded that tribal children develop low level of skills in solving different cognitive style tasks when they are being separated from the mainstream and put into the special tribal schools. The variations in cognitive styles may not be thus due to the group differences but due to the differences in school conditions.

(B) Conservation:

Significant 'F' values were observed on conservation of number, quantity, area, volume and composite cognitive development (reported in Tables 20, 22, 24, 26, 28, 30, 32 and 34). It implied that tribal children in tribal schools, tribal children in integrated schools and non-tribal children in integrated schools have achieved different levels of conservation. Some groups are better conservers than others. These group differences may be due to different school climates and group status. Gruenfeld (1966), Prince (1968), LLoyd (1971), Philip and Kelley (1974), Laurendeau and Bendavid (1977), Miller and Meltzer (1978) and Rogan (1983) have
reported a direct relationship between schooling facilities and conservation. The 't' values (Tables 21,23,25,27,29,31,33 and 35) showed that the tribal children in tribal schools did not differ significantly from tribal children in integrated schools in conservation tasks. So the different school conditions do not have any effect on the development of conservation skills. The idea of mainstreaming tribal and non-tribal children in an integrated setting does have justification. Further, it was reported that non-tribal children in integrated schools do better on all tasks of conservation than the tribal children in that school. It is thus understood that the variations in conservation of different groups are not due to the differences in school conditions but due to the differences in family variables of tribal and non-tribal children. Werner & Murlidharan (1970), Sinha and Shukla (1974), Broota and Ganguli (1975), Mishra and Tripathy (1975), Sahoo (1975), and Tripathy and Mishra (1976) observed that parental, social, cultural and economic deprivations result in deficient cognitive
functioning. The poor performance on conservation tasks by the tribal children may be due to poor socio-economic conditions. The better socio-economic condition of non-tribal children has been observed in the family case-studies. Differences between children from advantaged and disadvantaged homes on several measures of cognitive functioning have been reported by Das (1973), Das and Singh (1974), Das and Panda (1977), Mishra and Sahai (1977), Verma and Sinha (1977), Broota and Madholia (1978), Chawla (1979), Juneja (1979), and Mishra and Tripathy (1980).

From the above discussion, it seems that the basic psychological processes are affected by ecological factors as these provide the source and variety for sensory stimulation and thereby enrich the individuals' experience. Sinha (1976) had developed a more elaborate ecological framework following the lines suggested by Bronfenbrenner (1974). The environment of the child is conceived by him in terms of two concentric layers of ecology. The upper and the more visible layer contains his
home, school, peer-group, and so on. Each providing three dimensions of physical space and materials, social roles and relationships, and his activities. The supporting or the surrounding layer embedding the former is provided by the physical environment, institutional settings in terms of caste and social class, and general services available to him. The entire model has been worked out for differential cognitive functioning in Indian children. If these inadequacies are not corrected through appropriate intervention programmes, the goal of cognitive competencies would be difficult to achieve.

DIFFERENCES BY EDUCATIONAL CLASS

(A) Cognitive Style:

The 'F' value for the main effect of educational class on cognitive style was significant. The higher class children showed more field-independence type of cognitive styles than the children reading in lower classes. In the present study class IV children performed better on cognitive style tasks as compared to
the class III and class II children. Thus, the hypothesis of effects of class on cognitive style is found confirmed. Witkin (1954), Goodenough and Karp (1964), Cradall and Sinkeldam (1964), Berry (1971), Cradall and Lacey (1972), and Kagan and Klein (1973) in their researches reported significant age/grade effects on cognitive style. Mitchelmore (1974) found for male and female Jamaican school children, drawn from grades 1, 2, 5, 7 & 9, an increase in field-independence from the first to ninth grade on the EFT. In similar context, Witkin et al. (1974), Holtzman (1976), and Puspa (1981), who did not talk of grades, reported significant age effects on cognitive styles, which can be similar to effects of grade/class as age and grade are usually taken to be equivalent by most researchers.

(B) Conservation:

The 'F' values for the effects of class on conservation measures were significant. The higher class children were found to do better on various measures of conservation. This confirmed
the hypothesis of effects of educational class on conservation. In this context, it may be appropriate to mention Piaget (1948) who suggested that the attainment of conservation was related to the age of the children. Carpenter (1955), Lunzer (1956, 1960), Hyde (1959), Lovel and Ogilvil (1960), Wohewill (1960a, 1960b), Elkind (1961a, 1961b), McNally (1971), Brainered and Brainered (1972), and Goldschmid (1973) found that the sequence of conservation might vary with the level of schooling. Ras (1976) conducted a series of studies on concepts of mass, weight and volume. A significant age effect was noticed by him. His finding generally corroborated those of Piaget.

DIFFERENCES BY SEX

(A) Cognitive Style:

The main effect of sex on cognitive style was found insignificant. It indicated that males and females did not differ significantly on the nature of cognitive style they adopt. Gill, Herdther and Lough (1968), Bigelow (1971), Busch and Simon (1972), Ergineil (1972).

Some researchers have also reported sex differences in cognitive style. Watkin, Goodenough and Karp (1967), Bogo, Winget and Gleser (1970), Pandey (1970), Derussy and Futch (1971), Morf, Kavanaugh and McConville (1971), Andrews and Brown (1974), Migilligani and Barclay (1974), and Rajgopal (1974) observed that the cognitive styles adopted by male children were different from the female children. Berry (1975) reported that male children scored in a more independent direction as compared to the female children. The similar findings were reported by Vaught (1975), Tylor (1976), Perney (1976), Sharma and Tripathy (1984), and Pandey and Pandey (1985).
(B) Conservation:

The main effects of sex on conservation of numeration, quantity and length are found insignificant. The male and female children thus did not differ significantly in solving numeration, quantity and length tasks of conservation. This finding is in support of the earlier findings in the literature. Elkind (1961a, 1961b), Heron and Dowel (1973), and Solla and Cowan (1977) have reported the general absence of sex differences on conservation. The 'F' values for the main effects of sex on conservation of area, volume and composite cognitive development are found significant. It seems that while both male and female children conserve equally on number, quantity and length, there are gaps in conserving area, volume and composite cognitive development. Probably, conservation of mass is found relatively more difficult. Renner et al. (1976) found that males scored significantly higher than the females on Piagetian conservation tasks. This finding was supported by White and Friedman (1977) and Pesch (1984). Thus the hypothesis of the effects
of sex on conservation tasks is only partially satisfied in the present study.

INTERACTION EFFECTS OF GROUP TYPE, CLASS AND SEX.

(A) Cognitive Style:

The results of analysis of variance reported in Table-18 indicated that the interactional effects of group type, class and sex on cognitive style were not significant. It is understood that when the effects of group type, class and sex were combined, some amount of variance was reduced and adjusted. So the hypothesis of interaction effects of group type, class and sex on cognitive style emerged to be somewhat irrelevant in its present form. There may be a case for testing alternative hypothesis, however.

(B) Conservation:

The 'F' values for the interactional effects of group type X class on conservation of numeration and area are significant. It appears that within the groups, the organisation of
classes vary which differentiated the results in conservation of numeration and area. The 'F' values for the interactional effects of class X sex are found insignificant on all the measures of conservation. It meant that within the classes, males and females did not differ significantly on conservation. The third order interaction effects, e.g., among group type, class and sex on conservation is also found insignificant on most tasks except the conservation of length. The hypothesis of interaction effects of group type, class and sex, is thus only partially supported in the present investigation.

II. VARIATIONS IN AFFECTIVE ADJUSTMENT

The affective adjustment is assessed by considering two dimensions, e.g., frustration and the sociometric status of the children. The following four hypotheses are tested in relation to affective adjustment.

H5: Three groups, e.g., tribal children in tribal schools, tribal children in
integrated schools and non-tribal children in integrated schools will vary significantly in their affective adjustment.

H6: There will be significant effects of class on affective adjustment of children in all groups.

H7: Male children will differ significantly from female children on affective adjustment.

H8: There will be interactional effects of group types, class and sex on affective adjustment.

DIFFERENCES BY GROUP TYPE

(A) Frustration:

As evident from the results, the three groups in two different school settings are not different on different measures of frustration except the two dimensions, i.e., introductiveness and Group Control Relations (GCR). The tribal children tend to show lower levels of frustration
in both tribal and integrated schools. The levels of frustration of tribal children in respect of extrapunitiveness, impunitiveness, obstacle-dominance, Ego-defense and Need-persistence in integrated schools exhibit similar nature of frustrating situations as compared to their non-tribal counterparts.

Further, the results revealed that some groups adopt different levels of frustration in respect of intrapunitiveness and group conformity ratings than others. The group differences on the two dimensions of frustration may be due to the difference in two school settings and socio-economic background of the students. From Table 39, it is seen that tribal children in tribal schools did not differ significantly from tribal children in integrated schools on intrapunitiveness dimension of frustration. The different school settings may not have any impact on the intrapunitive dimension of frustration. Non-tribal children develop more intrapunitive type of reaction to frustrating situations than the tribal children. It may be due to better socio-economic
conditions of the non-tribal children which is evident from the family case studies. The results in the Table-49 reported that tribal children in integrated schools show more conformity to the group behaviour. They are thus better adjusted in integrated schools than the tribal children in tribal schools. So, the hypothesis of group differences on the various measures of frustration proved only partially relevant in the present study.

(B) Sociometric Status:

The main effect of group type on sociometric status is significant. The three groups, tribal children in tribal schools, tribal children in integrated schools and non-tribal children in integrated schools differ on sociometric status. It is felt that tribal children in tribal schools feel that they have a better social status than tribal children in integrated schools. Similarly, the non-tribal children in integrated schools consider their social status higher than their tribal counterparts. The results revealed that the
sociometric status of the children is affected by school environment and social background of the children. It is understood that having better socio-economic status, social acceptability and environment, the non-tribal children feel their status higher as compared to the tribal children. This finding is supported by the earlier findings in the literature. It is also reported in the case-studies that the non-tribal children come from better family background as compared to the tribal children. Minocha(1966) found that sociometric choices were significantly affected by the socio-economic levels of the students. Ahluwalia and Bhargav (1968), Jain(1968), Malhotra(1970), and Tripathy and Badami(1984) also reported that sociometric status appeared to have some relationship to background factors such as religion, family size, SES and family culture. Sharma(1970), found similar results. Gautam(1970), however, found that socio-economic status is not so closely related to sociometric status. Overall the group differences on sociometric status are found confirmed in the present study.
DIFFERENCES BY EDUCATIONAL CLASS

(A) Frustration:

It is evident from Tables 36, 38, 40, 42, 44, 46 and 48 that the 'F' values for the main effects of class are significant on different dimensions of reaction to frustration. McCary (1950) found a change and modification in reaction patterns to frustration of individuals with the development of age and experience. Parent (1960) and Rosenzweig (1978) supported this view. In other studies by Stoltz and Smith (1959) and Rosenzweig and Braun (1970) have shown age differences on Rosenzweig P-F Study. Mellina (1977) found that children's chronological age affects the modality of reaction to frustration. Rae and Singh (1981) also found the effects of age on P-F Study. Rauchfleisch (1971) found that different age groups did vary in their reaction to frustrating situations.

(B) Sociometric Status:
The results indicate significant effects of class on sociometric status. Class IV children obtain higher scores on sociometric test as compared to class II and class III children. It is understood that as children go from lower class to higher class, they become familiar with the school environments and feel their sociometric status better. This finding is found supportive of the earlier findings by Ahluwalia and Bhargav (1968). They found that sociometric status is positively related to chronological age of children. Gautam (1970) did not support the above views. He reported that age is not so closely related to sociometric status of children.

DIFFERENCES BY SEX

(A) Frustration:

The 'F' values for main effects of sex are not significant on different dimensions of frustration except the group conformity ratings. The male and female children do not differ significantly on various dimensions of
frustration. This finding supports the earlier findings in the literature. Spach (1951) discovered inconsistent sex differences in the picture situation on frustration. Stoltz and Smith (1959). Moore and Schwartz (1963), and Rauchfleisch (1981) have reported that insignificant sex differences in reaction to frustration. In the present study the only measure, group conformity ratings (GCR) is different for males and females. Male children show more conformity to the group behaviour than female children. Studies by Rosenzweig and Braun (1970), Sharma and Sharma (1971), Rao and Singh (1981), and Bhan (1984) have found earlier sex differences in reaction to frustration. Recently Biswas (1989) found that girls have stronger tendencies to point out the presence of frustrating obstacles insistently than the boys. The hypothesis of effects of sex on frustration may not thus be fully rejected.

(B) Sociometric Status:

The 'F' value for the main effects of sex is significant on sociometric status
The male children feel that they have a better social status than females. Male and female differences were also found by McGuire (1984). In an earlier study though Bhogle (1966) reported no sex differences in sociometric scores. The hypothesis of effects of sex on sociometric status has been confirmed in the present study.

INTERACTIONAL EFFECTS OF GROUP TYPES, CLASS AND SEX

It is seen from the 'F' tables that none of the interactional effects are significant, indicating that the combined effects of group type, class and sex do not make any difference in the variance of different measures of frustration. The hypothesis of interactional effects of group types, class and sex on frustration may not thus be accepted.

It is evident from Table-50 that the interaction effects of group types, class and sex on sociometric status are not significant.
It indicates that the combined effects of group types, class and sex do not contribute to the variances in sociometric status. The hypothesis of interaction effects of group types, class and sex may be ruled out in the present study.

III. VARIATIONS IN ACADEMIC ACHIEVEMENT

The following four hypotheses are tested in relation to academic achievement:

H9: Three groups, e.g., tribal children in tribal schools, tribal children in integrated schools and non-tribal children in integrated schools will vary significantly in their academic achievement.

H10: There will be significant effects of class on academic achievement of children in all groups.

H11: Male children will significantly differ from female children in their academic achievement.

H12: There will be significant effects of group types, class and sex on academic achievement.
GROUP DIFFERENCES IN ACADEMIC ACHIEVEMENT

The 'F' value of the main effect of group types is insignificant on academic achievement (Table-52). It is understood that tribal children in tribal schools do not perform well in achievement tests as compared to tribal children in integrated schools. Though in tribal schools tribal children get better academic exposure but it does not help them to score better in academic performance than the tribal children in integrated schools, who get more restricted exposure. It may be concluded that at primary level, institutional facilities may not play a vital role in the academic achievement of the children. Other than institutional facilities, the institutional environment, such as, teacher's teaching style and peer-group interaction may be possible explanations for better academic performance. Gorden (1975) reported that students are likely to feel stress in academics due to lack of psychological environment. Nandy and Singhal (1981) conducted a
study on motivational context of educational achievement among the poor. They found that parental expectations, occupation, home environment and motivational processes result in differential educational achievement. Aruna (1981) reported that the academic achievement was significantly related to general adjustment in the school and education of father/guardian. The hypothesis of group type differences in academic achievement is thus not found confirmed.

DIFFERENCES BY EDUCATIONAL CLASS

The 'F' value for the main effect of educational class is significant. It indicates that the group variances occur due to the effect of class differences. It is seen from the 't' tests that lower class children score better in academic achievement than higher class children. It may be due to the increasingly difficult nature of the subjects in higher classes. Bisht (1984) found no age differences on academic achievement, probably, due to the absence of differences in general between the two age groups.
DIFFERENCES BY SEX:

The 'F' value for the main effects of sex is significant on academic achievement. The male children secure higher scores in academic achievement tests than female children. This finding supports the earlier findings by Bisht (1984). He found that male students are having higher academic achievement than female students. In a similar context, Aruna (1981) reported that the academic achievement of boys was superior to that of girls. So the hypothesis of sex differences in academic achievement is thus confirmed.

INTERACTION EFFECTS OF GROUP TYPE, CLASS AND SEX

The results of analysis of variances reported in Table-52 indicate that the interaction effects of group type X class and group type X class X sex are significant. It is understood that the combined effects of group type, class and sex lead to differences in
academic achievement. Other interactions are insignificant. The hypothesis of interaction effects of group type, class and sex may thus be partially accepted.

IV. INTERCORRELATIONS AMONG DIFFERENT CATEGORY VARIABLES

(A) Cognitive Functioning and Academic Achievement:

It is seen from the intercorrelation matrices that the academic achievement of class II, III and IV tribal children in tribal schools, tribal children in integrated schools and non-tribal children in integrated schools is positively related to some measures of conservation, e.g., conservation of volume (occupied and displaced), length, composite cognitive development and cognitive style. It confirmed the hypothesis that the academic achievement will be positively associated with many measures of cognitive functioning. Bowie
(1978) found that the arithmetic achievement of children was positively related to conservation tasks. Kingma (1984) examined the kindergarten children on traditional intelligence, Piagetian tasks and initial arithmetic. It was found that the Piagetian tasks of seriation might especially serve as a valuable diagnostic instrument for initial arithmetic achievement.

In case of cognitive style Frechnner (1973) reported that the traits found in the cognitive style were positively related with all aspects of academic achievement. Vaidya and Chansky (1980), Watkin and Astilla (1980), Bonhomme (1980), Ahuja (1982), and Sharma and Tripathy (1982) have reported similar results. Recently Verma and Swami (1990) reported that field-independence cognitive style facilitates the scholastic achievement of economically disadvantaged students.
(B) Affective Adjustment and Academic Achievement

The intercorrelations reported in Tables 63, 64 and 65 indicate that the sociometric status is positively related to academic achievement of class II, III and IV children in all the groups. The child who obtains more choices in sociometric test also obtains better score in academic achievement. Other dimensions of affective adjustment are not positively related to academic achievement. This finding supports the earlier findings by Bhargav (1968), Jain (1968) and Malhotra (1970). They found that academic achievement was positively related to sociometric status of children. Sharma (1970) reported that the populars and the average, scored higher than the isolates in the final school examinations. Badami and Badami (1973) studied the amount and kind of relationships that exist between the group status of an individual pupil and the school achievement. A significant relationship was observed between sociometric status and various

(C) Cognitive Functioning and Affective Adjustment:

The analysis reported in Tables 72, 73 and 74 indicates that measures of cognitive functioning variables, such as, cognitive style, conservation of area, length, composite cognitive development, volume and quantity are positively related to some measures of affective adjustment e.g., sociometric status, need-persistence, obstacle-dominance and impunitiveness. This is the relationship for class II, III and IV tribal children in tribal schools.

Further, it is evident that some cognitive functioning variables such as cognitive style, conservation of area, quantity, volume and length are positively associated with
some of the affective adjustment measures, e.g.,
sociometric status, impunitiveness and group
conformity ratings of class II, III and IV
tribal children in integrated schools (Tables 75,
76 and 77).

In case of class II, III and IV non-
tribal children in integrated schools, the
analysis indicates that cognitive functioning
variables such as cognitive style, conservation
of length, volume and composite cognitive
development are positively related to
sociometric status and group conformity ratings
(Tables 78, 79 and 80). Thus the hypothesis of
relationships between variables of cognitive
functioning and affective adjustment has been
confirmed to a great extent in the present
study.

(D) Family Setting Variables and Cognitive
Functioning.

The family setting variables such as
occupation of the father, income of the family,
education of the family members, reading time, housing facilities, reading materials and parental involvement in the study are positively related to cognitive style and composite cognitive development variables (Table 81). This finding confirms the earlier findings reported by Werner and Murlidharan (1970), Sinha and Shukla (1974), Broota and Ganguli (1975), Mishra and Tripathy (1975) and Sahu (1975). They found that sensory, muscular, social, parental, cultural and economic deprivations result in deficient cognitive functioning. Rao (1971, 1974) and Bevli (1977) have reported that SES is an effective variables leading to differences in cognitive functioning. Ghuman (1977), and MacEachron and Greenfeld (1978) reported that many family variables such as parent-child interactions, fathers' involvement, presence of material stimulation and parental education are effective predictors of cognitive style.

(E) Family Setting Variables and Affective Adjustment

The family setting variables such as
the occupation and education of the parents are positively related to sociometric status and impulsiveness dimension of frustration (Table 82). This finding supports the earlier findings by Sharma (1970). He found that parental income of populars is more than that of isolates. Mellina (1977) and Mehta (1979) found that there is positive relationship between sociometric status and family variables, such as fathers' income, occupation and family size. This finding is supportive of the earlier studies by Rao and Sinha (1981) and Bhan (1984).

(F) Family Setting Variables and Academic Achievement

The academic achievement of children is positively related to some family setting variables such as education of the family members, reading time and parental involvement in the study (Table - 83). It indicates that children who come from educated families do well in academic achievement. Girija and Bhadra (1976) found that environmental factors of the
family such as education of the family members, occupation, family size, parent-child interaction, parental involvement in study and material presence at home seemed to exert considerable influence on the performance of students.

Nandy and Singhal (1981) also reported that parental expectations, parental occupation, home environment and motivational processes result in differential educational achievement. This finding was supported by Aruna (1981), and, Chaterjee and Paul (1981). Thompson (1985) reported close associations between the home environment and variations in educational performance. He found that within the home environment, the parents and not the material surroundings, are the important influences. The best individual environmental predictors of educational performance are home literacy, educational ambition and socio-economic efficiency.
(V) PREDICTION OF ACADEMIC ACHIEVEMENT

(A) Academic Achievement of Class II, III & IV Tribal Children in Tribal Schools.

The step-wise regression analysis indicated that the academic achievement of class II tribal children in tribal schools can be predicted by cognitive style, sociometric status, group conformity ratings, conservation of volume, quantity, obstacle-dominance and impunitiveness reaction to frustration (Tables 84, 85 and 86). The academic achievement of class III tribal children in tribal schools can be predicted by the predictor variables, such as cognitive style, extrapunitiveness, composite cognitive development, sociometric status, need-persistence dimension of frustration, conservation of volume and impunitiveness. The academic achievement of class IV tribal children in tribal schools can be predicted by the combination of sociometric status, conservation of volume, area, composite cognitive development, need-persistence and extrapunitiveness.
It emerges from the above discussion that in all the three classes, the academic achievement of tribal children in tribal schools can be well predicted by cognitive style, sociometric status, conservation of volume, composite cognitive development, need-persistence, impunitiveness and extrapunitiveness dimensions of frustration.

(B) Academic Achievement of Class II, III & IV Tribal Children in Integrated Schools

The step-wise regression analysis indicated that the academic achievement of class II tribal children in integrated schools can be well predicted by combining the variables of group conformity ratings, conservation of length, extrapunitiveness, conservation of area, volume, intrapunitiveness, obstacle-dominance, composite cognitive development and cognitive style (Tables 87, 88 and 89). The academic achievement of class III tribal children in integrated schools can be predicted by sociometric status, composite cognitive
development, cognitive style, impunitiveness, obstacle-dominance, conservation of volume and conservation of area. It is also reported that the academic achievement of class IV tribal children in integrated schools can be predicted by combining the variables of sociometric status, conservation of length, cognitive style, extrapunitive, conservation of area, conservation of volume, composite cognitive development and conservation of length.

The academic achievement of tribal children in integrated schools thus, irrespective of class differences, can be predicted by the variables, such as cognitive style, conservation of length, area, volume, composite cognitive development, sociometric status and obstacle-dominance.

(C) Academic Achievement of Class II, III & IV Non-tribal Children in Integrated Schools:

The results indicated that the academic achievement of class II non-tribal
children in integrated schools can be predicted by combining the variables of composite cognitive development, sociometric status, extra-punitiveness, obstacle-dominance, conservation of volume and need-persistence (Tables 90, 91 & 92).

The academic achievement of class III non-tribal children in integrated schools can be predicted by cognitive style, sociometric status, conservation of quantity, area, volume, composite cognitive development and group conformity ratings. Further, the academic achievement of class IV non-tribal children in integrated schools can be predicted by combining the variables of sociometric status, cognitive style, ego-defense, group conformity ratings and conservation of volume.

It seems evident from the above discussion that overall the academic achievement of non-tribal children can be predicted by composite cognitive development, sociometric status, cognitive style, conservation of volume and group conformity ratings.
To sum up, the academic achievement of children can be predicted by combining measures of cognitive functioning and affective adjustment, such as cognitive style, composite cognitive development, sociometric status and conservation of volume. To support the relationship between cognitive functioning (conservation) and academic achievement, Lunzer et al. (1976) and Bowie (1979) have reported positive relationships between different kinds of conservation and arithmatic achievement. Kingma (1984) examined the Kindergarten children on traditional intelligence, Piagetian tasks and initial arithmetics. It was found that the Piagetian tasks might specially serve as a valuable diagnostic instruments for arithmatic achievement.

To prove the prediction of academic achievement by cognitive style, Robinson (1974) found that cognitive styles were related to school learning both for boys and girls. Anderson (1974) conducted a study to determine the correlations between field-dependence-independence and academic achievement in third,
fourth, fifth and sixth grade pupils. He reported that the cognitive style is an accurate predictor of achievement among these pupils. Kagan et al. (1975) studied field-dependence-independence and school achievement by taking 135 students from second, fourth and sixth grade. Results indicated that field-independence was significantly correlated with the reading and mathematics achievement.

To support the relationship between academic achievement and sociometric status of children, Sharma (1970) conducted a study over some isolates and populars. He reported that populars and the average scored higher than the isolates in the final school examination. Badami and Badami (1973) studied the amount and kind of relationship that existed between the group status of an individual pupil and the school achievement. A significant relationship was observed between sociometric status and various levels of school achievement. Basu and Sarkar (1978) also found positive relationship between sociometric status and academic achievement.