CHAPTER X

SUMMARY AND CONCLUSIONS

It is now common knowledge that achievement of school students in academic subjects and in various other related areas depends upon their hereditary endowments as well as the quality of the environment in which they live and work. The question as to which one of these is more important in so far as its contribution to the all-round personality development is concerned—heredity or environment? This question cannot be answered in a general sense, much the same way as one cannot say whether the area of a rectangle depends more upon its base or upon its height. The area of a rectangle is the product of both base and height, and if any one of them increases or decreases the product will also increase or decrease correspondingly. In case of specific rectangles, however, one can say which one is greater, base or height, and consequently which one's contribution is greater in forming the area. In a similar manner the achievements of students can be supposed to be a function of both heredity and environment, and it is only in case of particular students that attempt can be made to investigate into the relative importance of these two factors. Otherwise, in a general sense, both are equally important.

Scientists are now trying to improve the hereditary endowments.
by modifying the genetic quality in the very embryonic state of the yet unborn baby. Such a process of quality control or quality improvement is pure scientific manipulation and is oxymoron to the process of education. Education, on the other hand, is a conscious process of surrounding the growing child in an environment from which it is expected to absorb a certain amount of desired knowledge, skills, attitudes and other desirable traits. Parents, guardians, teachers and all other elders concerned with the welfare of the young ones do try to create a favourable environment for them to grow. But everybody is not adequately sensitive to the necessity of providing a favourable environment and even those who are sensitive may not always know what is favourable and what is unfavourable, what is helpful and what is harmful. Some environmental factors, though damaging, are apparently innocuous looking and their operation may be very subtle to the eyes and ears of many.

Environment is neither a simple nor a single entity. It is complex and hence difficult to study. Sometimes even the different elements of the same environment may influence different individuals entirely differently. Objective assessment alone of an environment, therefore, is not sufficient if the subjective perceptions of the individuals exposed to that environment are to be adequately investigated.

The present study, therefore, attempted to understand the nature of the various components of school environment as well as the general conditions of home and neighbourhood in which the
students live. Identification and proper understanding of the relevant factors that influence the academic achievement of the young children are pre-requisite for undertaking any programme for the enrichment of various environments. Schools, families and other concerned agencies are generally isolated entities and, as a result, such mutually reinforcing actions as may be taken for the general welfare of the school children, are not taken. But if effective programmes can be developed for all children that would involve the enrichment and the co-ordination of family, neighbourhood, classroom environments, then modest improvements resulting from each might add up to a better overall environment conducive to significant increase in children's cognitive and affective characteristics. Such considerations constitutes the main aim of this investigation.

What then are the important components of our environment? The school-going child spends in the school only a small proportion of his total time in the year, yet the school environment is very important because, unlike other agencies like the family, everything in the school is organised for the benefit of the growing children and, as such, if something goes wrong a lot of harm may result. Out of 365 days in the year a typical high school sits for about 180 days. With occasional closures and not-so-infrequent half holidays, the total number of instructional hours per year comes out around 700 to 800. In the present investigation the case study of a school revealed that during the session 1976-77 this school had about 775 instructional hours. The Secondary Education Commission (1964-65)
suggests that the total number of instructional hours per year in the high school stage should not be less than 1000. If possible, the Commission says, it should be raised to 1,100 or 1,200. Each year there are $365 \times 24 = 8760$ hours, and out of this, $1000$ hours are spent by the school-going child in the school if he belongs to a fairly good school. Everyday, on an average, he sleeps for about eight hours with an yearly total of $360 \times 8 = 2880$ hours. Secondly, he spends about three hours each day in playing games or doing something with his playmates resulting in an annual figure of $365 \times 3 = 1095$ hours. The rest, that is slightly more than $15$ hours, every day, he spends in the home doing either homework, or domestic duties or simply doing nothing. So, the break-up is something like this:

<table>
<thead>
<tr>
<th></th>
<th>5 hours a day from Monday to Friday and 3 hours a day on Saturdays</th>
<th>1000 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>At school</td>
<td></td>
<td>(11.1%)</td>
</tr>
<tr>
<td>With playmates</td>
<td>3 hours a day</td>
<td>1095 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(12.2%)</td>
</tr>
<tr>
<td>At home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Sleeping</td>
<td>3 hours a day</td>
<td>2370 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(26.3%)</td>
</tr>
<tr>
<td>(b) Waking hours doing domestic duties, homework etc.</td>
<td>10 hours a day</td>
<td>3730 hours</td>
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<tr>
<td></td>
<td></td>
<td>(41.4%)</td>
</tr>
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$3760 \text{ hours} = 365 \text{ days}$
Thus it is seen that a child spends in school only 11.0% of the total time in the year. It is, therefore, not enough to examine the child in his classroom and talk over his failings with the teachers; it is equally essential to study the conditions of his life outside. In case of many students it is often found that much that is done in the classroom during the working days is undone during the evenings and weekends when the child is at home.

In a classroom due to close physical proximity the students interact among themselves and as a result certain friendship configurations emerge in various groups of students. Academic achievement and development of many other personality traits seem to depend on social acceptability of the students among their peers. In this research the investigator attempted to understand (1) the nature of friendship configurations that emerge among the pupils in a classroom (2) relation, if any, between the degree of social acceptability of the pupils by their peers and their academic attainment, (3) nature of teacher's control of their pupils, and (4) way of presentation of the subject matter by the teacher and other relevant aspects.

In order to measure the degree of social acceptance, sociometric technique was utilized. Each student was asked to write the names of boys/girls belonging to his/her section, in order of preference, with whom he/she would like to

(1) sit on the same bench
(2) go around during the tiffin hour
(3) work together in different academic subjects, and
(4) go to a movie/a football match etc.
Scores of 5, 3 and 1 were then assigned to the first, second and third choices respectively. Preference for companionship in these four in-school and out-of-school activities might be taken as sufficient indicators of close personal friendship. Such sociometric data were collected by the investigator in face-to-face situations. The students were given very clear assurance that their preferences would be revealed to none and hence they need not feel inhibited to commit their feelings freely. Secondly, care was taken to ensure that they did not discuss and thereby influence one another in writing names.

The scores for each individual were added up for the four different criteria separately. In order to eliminate the effect of the size of the section on the scores each total was divided by the total number of students ('choosers') present in the section. These were then multiplied by 100 for the purpose of eliminating decimals. For every student four such scores were obtained — one for each criterion. The total of these four scores for each individual was taken as representing his/her sociometric status or the degree of social acceptance by his/her classmates.

To obtain measures of academic achievement the total scores received by students in different academic subjects in their final promotion examination from class VIII to class IX and in the half-yearly examination held after six months in class IX were taken into consideration. The teachers evaluating the answer scripts in the different schools were not equally stiff or equally lenient; consequently, the highest scores, the lowest scores and the mean scores
of scores were all different in the different groups. The raw scores were, therefore, converted into Standardized Scores which permit comparison.

To test whether or not academic achievement is dependent on or related to sociometric status, chi-squares and Pearson's product-moment co-efficients of correlation were computed.

For computation of chi-square, all the boys (151) over three sections were taken as one single group and similarly, all the girls (106) belonging to three sections were taken as another single group. In each case the group was first divided on the basis of academic achievement scores, into four almost equal quarters — the top quarter, the upper-middle quarter, the lower-middle quarter, and the bottom-quarter; and then further divided on the basis of sociometric scores, into three almost equal sub-groups — the top third, the middle third and the bottom third. In such 4 x 3 tables, the degrees of freedom = (number of rows minus one) x (number of columns minus one) = (4-1) x (3-1) = 6. The values of chi-square for the boys' and the girls' groups were found to be 13.02 and 15.40 respectively. The former was found significant at .01 level (p < .01) and the latter was found significant only at .05 level (p < .05). These significant values of chi-square led to the rejection with positive assurance the hypothesis that there was no association between academic achievement and social acceptability.

Thus having established the existence of association, the academic achievement and social acceptability the degrees of
correlation between them were computed by the application of Pearson's product-moment coefficients of correlation. First, as in the case of chi-square, the boys and girls were taken as only two groups and the Pearson's coefficients of correlation between achievement scores and sociometric scores for these two groups were computed and found to be .63 and .42 respectively. The corresponding t's were 9.30 and 4.70 and the degrees of freedom were 131-2 = 129 and 106-2 = 104 respectively. Both the coefficients of correlation, and hence the corresponding t's, were found significant beyond the .01 level (p < .01).

Highly significant coefficients of correlation between academic achievement and sociometric status pointed to the use of the Pearson's r for all the six groups separately, three for boys and three for girls. The values of r for these groups were found to be .42, .53, .62, .39, .54 and .31 and the total number of students in these groups were 49, 43, 39, 37, 51, and 44 respectively. Four of these coefficients were found significant at .01 level (p < .01), one was found significant at .05 level (p < .05) and one was found not significant at any of these two levels.

In order to determine the reliability of the achievement scores rank-difference coefficients of correlation were computed between scores obtained in the annual examinations and scores obtained in the half-yearly examinations by all the students belonging to six different groups. The coefficients of correlation were .83, .86, .75, .84, .83 and .50, and the number of students in these groups
were 49, 43, 37, 36, 32 and 34 respectively. All these coefficients were found significant at .01 level of confidence (p < .01).

The reliability of the sociometric scores were also determined. In the sociometric technique that was used, each student gave choices and received choices. Such a situation provides two frames of reference for determining the consistency of the sociometric data. The first involves evaluating the stability of choices received, while the second is concerned with determining the consistency of choices given.

Test-retest reliability coefficients were computed to see as to what extent the choices given and choices received were consistent in two different administrations of the same technique. After four to five weeks from the first administration of the sociometric technique, the students were asked again to choose three classmates, in order of preference, with whom they would like to sit. Again the total scores received by individual students were determined by the same procedure, assigning scores of 5, 3 and 1 to the first, second and the third choices respectively. Thus, for the same criterion of sitting together on the same bench, two scores were obtained for each individual. Pearson's product-moment coefficients of correlation were computed between these two sets of scores for all the six groups. The values of the coefficients were .71, .87, .83, .79, .56 and .72; the number of students in these groups were 49, 43, 39, 37, 35 and 34 respectively. All the coefficients of correlation were found significant much beyond .01 level of confidence (p < .01). Thus, choices that individuals received were found to
be quite stable.

Next, the consistency of choices given was determined. It is concerned with determining the extent to which an individual's choice pattern remains unchanged after an additional period of interaction. Here the focus is on the choices given and then the choices received. If a student was found to choose the same classmates on the second occasion as he did on the first and if this was also true for all the other members of the group then it was concluded that the choice process was completely stable. If, on the other hand, the choices made on the second occasion were found to bear no consistent relationship to those made on the first, it was concluded that the choice process was not stable.

When all the three choices on the second occasion were identical with those given on the first, this was considered as 100 per cent no change. When two responses on the second occasion were identical it was considered as 66 per cent no change, and when only one response was identical this was taken as 33 per cent no change. When none of the responses on the second occasion agreed with those given on the first, this was considered as 0 per cent no change, that is, 100 per cent change. In each group the number of students whose identical responses in the two administrations were 3, 2, 1 and 0 were counted separately and for each group the average per cent no change was calculated. The were found to be 60.9, 79.6, 69.3, 68.1, 69.7, and 64.1 per cent no change. The overall average of all the six groups taken together was found to be 73.16 per cent no change which is
equivalent to 2.2 identical responses on the two occasions. But it was seen that, on the whole, out of the three classmates chosen by each student on the first occasion 2.2 were chosen again on the second occasion. The choice pattern was, therefore, regarded as stable and hence quite reliable.

Stability of choices received and choices given leads to the conclusion that friendship configurations do not change considerably in a short time. Occasional quarreling among students, sudden development of intimacy between pairs of students, and equality of the forces of attraction towards more than one classmates are some of the factors that prevent the choices received and choices given on the two occasions from being hundred percent identical.

In each classroom there were students enjoying high social status while there were others receiving no choice at all. In each group there were leaders, cliques, reciprocal relationships or isolates. How is it that some of the students are very much liked and wanted by their peers while others are not? What are the traits the possession of which render some students easily accepted while how can the school and the family aid in developing in the pupils some skills to make them more acceptable to others in their group? These are important questions in the field of education as corrective actions may be taken in many areas after cause-effect relationships are carefully understood.

Positive association and high correlation between academic achievement and sociometric status, as have been established
through chi-square technique and Pearson's product-moment coefficient of correlation, may be taken to mean that academic achievement is partly responsible for popularity, that is, academically bright students, by virtue of their high academic attainment command greater popularity among their peers.

In order to understand the nature of such a relationship, case studies of pupils were made and their free responses to questions asking them to write the causes of liking and disliking their classmates were analysed. About three hundred students of class IX, boys and girls, spread over six different classrooms were thus asked to write as many causes of liking and disliking their classmates as they could think of. They were instructed that while recording they should bring before their mental eyes the particulars of classmates whom they liked most and disliked most and then to tally of the traits in them which they found attractive and/or repulsive. This instruction rendered the job easy for them because the entire task boiled down to writing descriptions of specific persons. Everybody wrote with enthusiasm, at least the causes of liking. Some of the students, however, were a bit reluctant to give the causes of disliking, saying that they disliked none. Nevertheless, with repeated assurances that nobody will ever see any one else's answers, adequate and free responses about the causes of disliking also could ultimately be elicited.

Proper scrutiny and analysis of their responses showed that the pupils wrote altogether seventeen different causes of liking their classmates with varying emphasis. The pattern of emphasis
shown by boys and girls were different. The following are the causes arranged in order of emphasis, as indicated by the list. The order of emphasis was somewhat different for the girls.

1. Proficiency in academic work
2. Good behaviour and moral character
3. Sobre and simple/without any pride and vanity
4. Helping nature
5. Friendly attitude towards classmates
6. Proficiency in co-curricular activities
7. Obedience and discipline
8. Possession of common interest
9. Interest in co-curricular activities
10. Respect towards elders
11. Neatness and cleanliness
12. Belonging to the same neighbourhood
13. Smartness and ebullience
14. Sense of humour
15. Courageous
16. Having good health, and
17. Having good looks

The last factor in the above list, viz., good looks, was not mentioned by the boys while the girls mentioned it with some emphasis (4.45%). Similarly, in the girls' preference list, good health, smartness and ebullience, neatness and cleanliness hold relatively high positions. About bodily aspects, the girls also
to be more concerned than the boys. On the other hand, the girls have not indicated respect shown towards elders as a cause of liking. Perhaps, feminine character and respect for elders is much hand in hand in our society that the girls have not often felt their classmates to be utterly disrespectful to their elders (teachers in the classroom) to uphold the opposite of this as something laudable or likable.

The students mentioned the following nineteen causes for disliking their classmates. Some of these were just the opposites of the causes of liking and some were different.

1. Disturbing, bullying and teasing nature
2. Bad character, use of profane language
3. Drug addiction
4. Poor at academic work
5. Quarrelsome nature
6. Uncooperative, unfriendly and insympathetic
7. Destructive nature
8. Pride and vanity
9. Telling lies
10. Jealousy
11. Miserliness
12. Not frank
13. Dirty
14. Disrespectful towards elders
15. Truancy
The application of sociometric technique has revealed, as already mentioned, that some students received no preference at all or a very small number of preferences from others. These are technically known as isolates. In the present investigation those students whose sociometric scores are below 25 are considered as isolates. The drawing of this line of demarcation is, however, entirely arbitrary. In the investigation about 12 per cent of the students are found to be isolates.

The nature of the isolates is an interesting study. They show different characteristics and on the basis of these characteristics they are classified into three categories: (1) recessive children, (2) socially uninterested children and (3) socially ineffective children.

Recessive children generally do not participate in events around them. They are of a quiet and retiring nature. Those who are severely recessive do not take any interest in people, activity or events of the outside world. They seem to exist rather than live. They lack vitality and are listless, either below normal in intelligence or ineffective in their use of the ability they have. They seem to have energy sufficient merely to keep them alive and carry them through the day without any drive and thrill.
generally not liked by others and consequently, they always have a feeling of insecurity arising out of non-acceptance by peers.

The next category i.e., the socially uninterested children look very much like the recessive children. They accept the requirements of classroom procedure with passivity and rarely react or take any initiative to bring about change. However, exploring into their lives in totality one can discover that they do have interests. Their interests are always personal rather than social. They enjoy pursuing their own interests but do not use their interests as means of communication with others.

The socially ineffective children appear to be diametrically opposite from the recessive children. They have vitality and are keenly interested in social affairs. They are often noisy, restless, and delinquent in classroom activities. They are a nuisance to the teachers as well as other classmates. Like the recessive children, they also have a feeling of insecurity. In fact, their noisy and boisterous behaviour are nothing but naive attempts to overcome the basic social insecurity and isolation. To compensate for the lack of social acceptance they generally have a tendency to acquire social domination by anti-social means. Technical ability, long experience and careful observation on the part of the teacher is necessary to identify different categories of such students who may then be helped to overcome specific inadequacies with right kind of corrective measures.

It was noticed that individuals in a group could fully develop in academic and other spheres only in interaction with their fellow
students. To a large extent, the happiness and growth of each individual student depend on the sense of his personal security with his classmates. The school and the families, therefore, must aid in the development of social skills in the children. Teachers should try to bring about a healthy social climate of friendship and co-operation in the classroom and strive specially to bring the socially unaccepted pupils into closer association with others. In case of recessive and socially uninterested children the school can attempt to develop interest in some activities like sports, music and fine arts or some other hobby. In a similar manner the socially ineffective children may be brought to general association with others by giving them more social responsibility and thereby a sense of status. In all such attempts the teacher should carefully camouflage his concern for the isolates. Any loud expression of obvious concern may have harmful effects. While helping isolates the school, and the family in particular, would keep on reminding themselves not to be unduly worried about these students who are not specially popular but otherwise quite well adjusted with people and events around them.

Investigation was made to find out the influence of parents' educational levels on the academic achievement of their sons and daughters. The levels of educational attainment of both fathers and mothers of all the students under the study were obtained. Levels of educational attainment were found to range from illiteracy to post graduation. Both fathers and mothers were divided into seven categories from illiterate to the highest level. Fathers were found
to be more numerous in the upper end of the scale; more than one third (35.02%) being graduates or above and more than two thirds (37.50%) being above the level of matriculation. The mothers on the other hand were found to be concentrated in the level between primary pass and below matriculation (60.33%). It was further observed that in 79.32% cases the educational levels of the fathers (husbands) were higher than those of the mothers (wives), in 16.46% cases the husbands and wives were on the same educational level and only in 4.22% cases the educational attainment of the wives was higher than that of their husbands. Incidentally, higher academic attainment of husbands seems to be due to the general masculine dominance in our society that operates against young men marrying girls whose educational attainment is higher than their, lest the masculine dominance is impaired. Secondly, until recently higher education for girls was not much encouraged in our society—another pointer in the direction of man's desire to keep women in an inferior status.

In order to get a statistical measure of correlation between the education of fathers and mothers, the coefficient of contingency (C) was computed from a contingency table of 7 x 7 fold classification. Contingency coefficient was found to be .65 but since the maximum value that such a coefficient can take depends upon the richness of grouping, a correction was necessary. The corrected value in the present case came out as .71. From this value of C, the chi-square was calculated by the formula:

$$C = \sqrt{\frac{X^2}{N \cdot X^2}}$$
Chi-square, thus calculated was found to be 337. From chi-square tables the computed value of chi-square was found to be highly significant far beyond the .01 level. Consequently, it was regarded as highly significant, because the significance of it is best tested by way of chi-square.

Next, in order to test the association between academic achievement of the students and their parents' education, again chi-square test was used. Four tables were set up between academic achievement of boys and girls, on the one hand, and their fathers' and mothers' education, on the other. In each case the value of chi-square was converted to C according to the formula shown above. In case of boys the two values of chi-square and the corresponding C's were found significant at .01 level, whereas in case of girls both the values of chi-square and the corresponding C's were found significant at .05 level.

Positive correlation between academic progress of students in schools and their parents' education appears to be due to the fact that educated parents attempt to keep at a relatively high level the intellectual environment of the home. Because of their education the parents, particularly the fathers, are likely to find themselves, in most cases, in comparatively fair economic position which enable them to provide conducive conditions for educational development of their children. The children share in the comparatively high level conversation of the parents and thereby, besides absorbing a better vocabulary, they imbibe from day to day a miscellaneous store of worldly wisdom. Most of these advantages are
conspicuous by their absence in intellectually deprived homes.

Of the various factors, one important reason for poor school attainments is absence from school itself. Adverse effects on the child, traceable to his absence from the classroom at different times, accumulate but as the damage done during each event of absence is relatively small and almost imperceptible, it tends to escape the notice of the teachers and the parents.

First in order to scrutinize the pattern of absenteeism, the total number of absent days, during a period of about six months, for each student belonging to class IX in six different schools were ascertained from the attendance registers. It was found that, on the average, in a boys' class 22.7% of the students were absent every day. The corresponding figure for girls' is 11.8. These figures are averages and naturally they differ from school to school. Schools attended mostly by students from higher socio-economic and socio-cultural levels of the society showed comparatively low absenteeism.

The causative factors of absenteeism are manifold; what is more, subjective and objective conditions are intricately interlinked together making the impact of particular causes obscure and difficult to investigate. However, by studying the school and home conditions, it was found that the main causes of absenteeism are illness, poverty, attendance of social celebrations, school problems, household duties and truancy. Parents and teachers should be adequately sensitive to the pernicious effects of non-attendance and they can greatly increase attendance by appropriate measures.
In order to see the relations, if any, between non-attendance and academic achievement, rank-difference coefficients of correlation were computed between academic progress on the one hand and number of absent days on the other for groups of students belonging to different classrooms. The values of these coefficients for six groups of students were found to be +.30, +.37, -.1, -.2, -.34 and -.30. These results are, however, inconclusive since some coefficients are positive and some are negative.

Negative coefficients indicate that those who are more regular are also academically better, and those who are irregular are academically poorer. Such a relation need not, however, be taken as indicative of the existence of a perfect cause-effect relationship, because there are some students who, although extremely regular, are poor academically and similarly there are others who are academically good in spite of their irregularity, perhaps due to the exercise of other influencing factors like intelligence etc.

Positive coefficients, on the other hand, indicate that those who are superior in academic standing have, in general, a smaller number of absent days while academically inferior ones tend to be more regular in attendance. This situation can be explained by the tendency of some good students to develop intellectual curiosity and consequently to take occasionally the pleasure of remaining away from the classroom. Yet another explanation of this situation is that sometimes the academically bright students come in close association of naughty boys in whose view it is proper to attend
attitude to profess a distaste for books and lessons. Despite absenteeism such students may still be capable of maintaining a superior intellectual position in the class, although unfortunately, their intellectual level in the absolute terms deteriorates. They always remain inferior to what their potential could lend them to if they were regular. Comparison in such matters is obviously not with others but with one's own potentiality. If everyone were regular, then with all other factors remaining constant, everyone would be academically better than what they really are. The truth of this, however, can neither be established in theory nor demonstrated experimentally since it entails the comparison of a real situation with a hypothetical one.

To study the effect of economic conditions of families on the academic achievement of their children, the families were divided into five categories on the basis of economic status. These were: poor, very-poor, above the poverty-line, well-to-do and very well-to-do. The average achievement scores of students belonging to these five categories of families showed that the very-poor group was significantly inferior in academic achievement than the other groups. This points to the likely existence of a minimum poverty-line below which all the children lose their motivation completely and, consequently, their intelligence, even if high, becomes inoperative. Among the students belonging to other economic categories, high and low achievement scopes are all mixed up reflecting the inter-action of various influencing factors other than poverty. Along with poverty the cultural tone of the family also plays a vital
role in academic achievement. In the families where there is a general attitude of laxity, irregularity, evasion and absence of seriousness, the children are found to imbibe all such negative attitudes and become failures at school. Favourable parental attitude towards education and well-being of the children was found to play more vital a role in academic achievement than the material conditions of the home.

Beside poverty and cultural deprivation, there are many other factors in the family that have a bearing on education of the young ones. Of the various factors, only two have been gone into in detail in this investigation: (a) family size and (b) ordinal position of the child in relation to other siblings in the family.

Families were found broadly to be of two categories: (a) single or nuclear and (b) joint or extended. In general the large extended families were found incapable of providing adequate educational motivation to the children. Also in these families, the emotional and attitudinal training of the young children was found to be far from satisfactory. The chief reason for this seems to be sheer largeness and consequent dilution of emphasis on child's development since a large part of the family's care and attention is absorbed by the old and the sick. The single or nuclear families, however, have one great disadvantage; sudden and untimely death of any one parent is likely to expose the family, in some cases, to terrible circumstances. The death of the father in some families was found to have disastrous effects on the children due to sudden loss of economic and emotional support. Similarly, the untimely death of
the mother in some families was found to force the children to live a rougher and harsher life. For the girls particularly the motherlessness means the absence of a model to copy.

Of the 237 families studied, 17.3% were found to have more than 6 children (of the same parents), 75.9% between 3 and 6 children, and 6.8% 1 or 2 children. Investigation was made to ascertain as to whose families are big, rich men's or poor men's. The relevant data showed that the average number of children per family in the various economic categories were not significantly different. Thus, the general notion, which many people seem to believe, that poor families have relatively greater number of children is not corroborated.

All the children born of the same parents do not, rather cannot, get the same treatment for the obvious reason that many relevant factors concerning men and material in the family are altogether different at the time of birth of various children. Being the eldest is decidedly different from being the youngest, which, in turn, is still different from being an intermediate child for the reasons quoted above and for the additional reason that siblings inter-act among themselves and thereby influence one another. Ordinal position has some influence on various personality aspects. The means and standard deviations of the achievement scores of the first-born and later-born children were calculated and it was observed that the first-borns were significantly better in academic achievement than the later-borns.

The main findings of this investigation have been summarised
above. In conclusion let the main threads of investigation be pulled together again. The main objectives of the thesis are to:

(a) ascertain — through a set of suitable questions — the social acceptability or otherwise of individual students among their peers, (b) evolve a statistical technique to measure the degree of such acceptability, (c) identify the salient factors which for acceptability, (d) ascertain the association or otherwise between academic achievement and acceptability, (e) identify various other correlates of academic achievement and (f) indicate, in the light of the empirical findings, specific and conscious steps that need to be taken — mainly in the school and the family — in order to view to increasing and sustaining those attributes in the students which have a significant bearing on their social acceptability and academic progress.

Whether in work situation or in society at large, the need for social acceptability extends throughout life. Nowhere, however, the association and inter-action among individuals are so intimate and spontaneous as in the classroom of a school. Nowhere else do individuals are more prone to receive guidance from elders and assimilate it than during their growing stages in the school. Therefore, the essential traits in young ones which show up as being conducive or inhibitory to their eventual overall progress or development have to be recognised as such accurately by the school and parents in fairly incipient stages. Such recognition should always be followed by suitable measures — overt and/or discreet — which may result in gradual elimination of undesirable traits and in
inducement of positive impulses to acquire attributes socio-culturally desirable. While technical excellence in terms of academic achievement is the kingpin of one's equipment for success in life and, therefore, the school, in particular, has to strive hard to ensure the best possible academic achievement by its students, such achievement needs, however, to be blended by the development of other qualities so as to make an academically competent student also socially aware and humane as he has to grow up and live in harmony in association with others. Indeed, academic achievement tends to be hampered unless a sense of personal security is derived from one's social acceptability among his peers; on the other hand, fuller realisation of potential academic achievement results on the strength of the knowledge of one's acceptability.

Close physical proximity in a classroom is not synonymous with an intimate sense of belonging to the group on the part of every student in equal degree. Nor does a high degree of acceptability of all students by one another connote dilution of individual uniqueness. In fact, it is the individual uniqueness which is often the cause of one's popularity. However, the totality of the traits determines the extent of acceptability or otherwise. Efforts should be undertaken so that undesirable predilections, if and where they exist, may be eliminated before they get hardened.

In respect of students' academic achievement proper — on which their social acceptability depends to a large extent — the school is in the pivotal position and, therefore, has to make the greatest contribution. However, it was revealed, in course of the
present investigation, that exogenous factors like the socio-economic family background and the cultural tone of the neighborhood could satisfactorily consolidate or seriously inhibit academic achievement of students. Some of the inhibiting conditions obtaining outside the school are long endemic and, therefore, amenable to improvement only over the long run.

In particular situations, these exogenous conditions appeared to so overwhelm the students that even the best efforts made by the school may not be of any avail to them. This aspect needs to be borne in mind as academic achievement or non-achievement is usually looked upon as exclusively a problem of the school. If the causes were all rooted in the school itself, the problem would be easier of solution.

But everywhere, the overall mix of personality traits in a student including academic achievement is the cumulative product not only of the quality of his school but also of the economic and socio-cultural milieu of his home and its environment. Absence of intercommunication between the institutions of the family, school and the society at large leave serious knowledge gaps thereby prevent co-ordinated and mutually re-inforcing efforts being taken in the interest of the students and very often resulting in negation of the good work done in one by the other. Barring very bad situations, scope exists for making education more effective and meaningful through such co-ordination.

Unfortunately, it was clearly in evidence during the present investigation that in the schools themselves, the absence of
facilities hamper possibilities of greater social acceptability, academic achievement and personality development. What is even more serious is the inadequacy in terms of competence, comprehension, awareness and earnestness on the part of a section of teachers. Many competent teachers, on the other hand, would be motivated to put in much greater sincere efforts calculated to promote social acceptability and academic achievement of their students if the facilities were at their disposal. Whether in the light of the findings, the quantitative increase in the number of school-going children is warranted by the available resources of material and personnel is a question outside the purview of this thesis. It is, however, one of the findings of the study that even in the given situation, significant improvement is possible with proper insight into the problems and greater thought and effort given to their solutions. Often the lever of change, particularly in the sphere of school education, is not necessarily greater material resources but an appropriate orientation with clear objectives as to what constitutes the overall development of the students and where and how the specific efforts have to be channelised.

Study of environmental factors is a subject which can be pursued almost endlessly because the factors can combine among themselves in an infinite number of ways. Further research, for example, can be undertaken to (1) ascertain the influence of comparisons on students' achievement, (2) study the effects of physical and mental handicaps in school progress, (3) investigate into the influences of various mass media, and many other factors affecting education of school students.