CULTURAL INFLUENCES ON THE ACADEMIC PERFORMANCE OF INDIAN STUDENTS OF CANADA

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Chapter I

INTRODUCTION

The history of the education of Indian children across Canada has been marked by high drop-out and failure rates. This general lack of apparent success within the school system is a cause for concern, both among educators and Indian leaders.

While many writers have cited social and economic factors as being the causes of rejection of school by Indian children, some aspects of Indian lifestyles seem to have a very strong influence.

The educational elements and the methods of education among various human communities are not the same. Each way of life is distinctive in its outlook, content, the kind of adult personalities favoured, and the way children are raised. The educational system of virtually every culture is concerned with the transmission of its culture. Thus, within Canadian society, certain attitudes and values that are regarded as being essential to the continued existence of the society, are transmitted to the young by way of the educational system. The importance of time, respect for authority and value of a good education are some elements of Canadian culture which are transmitted through the schools. Moreover the materials used in the educational system, merely reinforce these cultural elements, and it is widely assumed that all children educated within this system should readily absorb these cultural elements.

For the Canadian Indian child, the educational system often

appears to be discontinuous with the background from which he came. The cultural elements experienced within the system seem not to reinforce traditional Indian values. Herein may lie an important source of drop-out and failure of many Indian children.

I. Purpose

The purpose of this review of the literature is as follows:

1. To demonstrate that the cultures of the Canadian Indian children differ widely from the Canadian middle-class culture.
2. To show that Indian cultures have distinct effects on the learning styles of Indian children.
3. To show that the differences between the culture of the Indian children and the culture of the school has contributed largely to the under-achievement of Indian children in Canadian schools.

II. Importance of the Study

The education of Indian children in Canada has been approached from the point of view of a scientific and technologically oriented society. On the other hand, Indian people in Canada are historically food gatherers - hunting, fishing and trapping. While the purpose of education is to enable the Indian children to become involved in the economic life of the Canadian society, the method of delivering that education has not met with much success.

This review of the literature is designed to make educators

aware of the difference in mental outlook of Indian children which is due to their cultures. Moreover, an awareness of the effect of Indian culture on the learning styles of Indian children would assist educators in devising curricula and classroom materials and methods which would assist the Indian children to obtain maximum benefit from school.

III. Method

In this review, the writer intends to cite evidence to answer the questions and support the general hypotheses posed through library research.

Moreover, additional evidence gained through the writer's contact with Indian children in the classroom and the communities in which they live, would be provided.

It must be pointed out that, while various Indian tribes have differences in their tribal cultures, there are enough similarities among the cultures of these tribes which justify the use of the studies cited in this paper.

It is intended to cite the various studies done on the achievement of Indian children both in Canada and the United States to support the hypotheses of this paper.

In addition, other studies concerned with the achievement of children of non-Indian non-white cultures will be used to support the hypothesis that children generally have lower levels of achievement within educational systems that are part of a dominant culture.

IV. Plan

The review is divided into two major categories reflecting aspects of the cognitive and affective domain which contribute to the success or failure of Indian children within the Canadian school system.

The major hypothesis is that Canadian Indian children tend to achieve lower than non-Indian children because of the differences between the Indian and school culture.

Cognitive domain. In this section it is intended to provide some answers to the following questions:

1. (a) What is the level of achievement of Indian children in the school system?
   (b) Do Indian children possess lower intelligence levels than non-Indian children?
2. How is Indian culture related to the linguistic problems of Indian children within the Canadian school system?
3. How does Indian culture influence language conceptual development?

Affective domain. In this section, it is intended to cite studies which will help to answer the following questions:

1. What are some of the values brought by Indian children to the classroom and how do they conflict with the school values?
2. How do Indian parents influence the academic achievement of their children?

3. How does culture influence learning processes of Indian children?

The underlying hypothesis in this section is that culture influences value and attitude development and is therefore related to the academic achievement of Indian children within the Canadian school system.

V. Definition of Terms

For the purposes of this paper, the following terms will be defined as follows.

Attitude. The evaluations and behavioural intentions of an individual.

Culture. The sum of the learned behavioural patterns, attitudes and material things of a people.

Indian. A person who is a descendant of any of the various aboriginal tribes of North America and has retained his or her tribal culture and who is registered or entitled to be registered as an Indian according to the Federal statutes in Canada or in the United States.

This definition of the term Indian stresses the retention of traditional ways of living in view of the fact that Indians become acculturated in varying degrees according to their proximity to the dominant culture in North America.

Metis. A person is partly of Indian ancestry and who has retained the elements of his or her tribal culture but is not entitled to be registered as an Indian.

Value. The sociocultural constraints within which an individual or a group operates.

VI. Background to the Study

Introduction. From the time of arrival of the first settlers in Canada, attempts were made to educate the Indian people according to the European system. These attempts, first by the French followed by the English, were aimed specifically at providing Indian children with a skill or an education which would enable them to enter the mainstream of Canadian society.

Initially, the French encountered some success in their attempts. However, subsequent attempts by the English, from that period met with failure and that failure has continued until now.

Academic problems and drop-outs. Much research has been done and many factors have been cited as contributing to the relatively poor performance of Indian children in Canadian schools. Evidence for academic problems was provided by high drop-out rates, language difficulties, poor motivation and poor attendance.

Jampolsky (1966) for example, in a study of Indian school leavers across Canada between grades 9 and 13, reported a 31.48% loss of the school population. Hawthorn (1967) reported a 94% loss of school population between grades 1 and 12.

Schalm (1968) reported truancy, language difficulty, age-grade dichotomy, low academic motivation among Indian children, as well as poor communication between school and the Indian home and curriculum biased toward middle-class experiences. Foss and

Ali (1977), in a study of the attendance patterns in some Indian schools of Manitoba, reported a decrease in school attendance as the year progresses. They further pointed out that while parents lend verbal support against poor attendance, they were unwilling to exert any influence to correct this.

Kirkness (1978) noted a decline in enrollment of Indian children in grade 8, with age grade retardation reaching the highest percentage at grades 7 and 8. She also pointed out that the highest rate of drop-out occurs in grades 7 and 8. (p. 168).

Eddington (1969) reported that major findings of research showed the Indian student to be far behind other students in achievement.

The cause of under-achievement of Indian children has been ascribed to cultural differences. Hawthorn (1967) attributed low achievement of Indian children in Canada to cultural elements. Both language and cultural bias of educational materials have been cited as contributory factors (New Horizons, 1968).

Similarly, Spilka (1970) pointed to a clash of middle-class values with Indian cultural heritage.

Ryan (1976) in a study of the educational problems of adolescents in remote areas of Ontario, pointed to unequality of educational experiences for students from remote areas when compared with students living near to a high school.

Culture differences and conflict. The preceding studies have demonstrated common problems among Indian children with respect to the school system. The underlying factor seems to be the cultural differences which exist between Indian cultures and that of the school.

Indian cultures are in many respects different from that of the middle-class culture in which Indian children are educated.

Fuchs and Havighurst (1972) stated:

> While there is diversity among various tribal cultures, there are certain characteristics which tend to be the same among all Indian cultures and different from the urban industrial culture of the larger surrounding society. These include close family solidarity and co-operation with mutual support among members of a given age group, belief in the values of a tribal tradition, belief in tribal religion and a tribal language. (p. 129)

Middle class values tend to be rejected by Indians because of conflicts with Indian values. Carroll (1978) pointed out that the traditional Indian rejects middle-class values as crass and materialistic, while favouring values such as present orientation, harmony with nature, non-competitiveness and conformity.

Hawthorn (1967) pointed out that the Indian child experienced conflict in the areas of autonomy, discipline, competition, time and language (p. 127).

Conflict in learning styles. Hawthorn (1967) pointed out that the school processes interrupt or conflict with the learning processes of the child (p. 127). Conflict of learning style is a major contributing factor in the under-achievement of Indian children. While co-operativeness is a quality valued among Indian cultures, competitiveness is important in the learning processes in the schools. (Hawthorn, 1967).

Cohen (1969) further points out that the school requires an analytic approach to learning (p. 496). On the other hand traditional Indian education is through observation and imitation of adults. Murdock (1981) pointed out that Indian children learn

mainly through imitative play and observation, from teachers who are their close relatives (p. 296).

Wintrob and Sindell (1968) and Rohner (1965) point to learning by observation of elders and siblings as well as through manipulation and experimentation.

Culture also has influence on listening behaviour. Cazden and John (1971) cited Hall who describes the listening behaviour of some Indians as follows:

> Unlike middle-class whites, the direct open-faced look in the eyes is avoided by Navajos. In fact, Navajos froze up when looked at directly. Even when shaking hands they held one in the peripheral field of the eyes. (p. 262)

The preceding studies have demonstrated that conflicts arise between the value system of the Indian children and the school as well as in their learning styles.

Further support for the special effects of culture on learning and performance is demonstrated in the studies of other cultures.

Gutentag (1972) studying Black children in the United States reported that they learn faster with techniques that incorporate body movements in the learning process.

Further, Gutentag and Ross (in Hale, 1981) found that Black children learned simple verbal concepts easier when they utilized movement than when they were taught by traditional methods in schools. Young (1970) observed that Black people were more proficient at non-verbal communication.

Gay and Cole (1967) found that rice farmers from North Central

Liberia were able to estimate more accurately the number of cups of rice in a bowl than American adults (p. 65).

The various studies cited, point to the fact that each culture imposes its unique style upon the members of that culture. When there is a conflict in culture, it makes its effect felt in various ways, such as drop-out and under-achievement of Indian children.

The culture of the Indian child predisposes him to act, think and feel in ways that are unique to his culture. Thus in a middle-class oriented school, a conflict of language, learning styles and values and attitudes have negative effects on Indian children.

Chapter II

REVIEW OF THE RELATED LITERATURE

THE LITERATURE PERTAINING TO THE ACHIEVEMENT OF INDIAN CHILDREN IN BOTH CANADA AND U.S. ON TESTS OF INTELLIGENCE

Indian school children have been the subject of a large number of studies in which they were tested on intelligence, attitude, aptitude, values and various other aspects of personality. In some instances, the suitability of these tests for Indian children was investigated.

In Canada, one of the earliest studies was conducted by Turner and Penfold (1952) on the scholastic aptitude of Indian children of the Caradoc Reserve in Ontario. The tests consisted of four parts as follows:

1. The Otis Quick-Scoring Mental Ability Test
2. The Henmon-Nelson Test of Mental Ability
3. The Progressive Matrices (1947), sets A, AB and B
4. The Wechsler Intelligence Scale for Children (WISC)

The tests were administered during the fall and winter of 1950-51 to pupils of ages 6 to 13. The numbers tested were 205 Indian and 215 white pupils. The results showed that Indian children did as well as average white children on the Performance Scale of the WISC, but less well than white children on the WISC Verbal Scale and on the three group tests. The inferior performance of the Indian children on WISC was most marked in the Vocabulary Test and to a lesser extent in the General Informance and General

Comprehension Tests. The inferiority in performance applied to all ages and grade levels, in addition to which, the age of Indian children was, on the average, 6 months or more for each grade.

One of the first large-scale studies of cognitive ability of Canadian Indian children was conducted by Renaud (1958). The subjects were 1562 Indian students residing in Catholic residential schools in Northwestern Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. These students were considered to be familiar enough with English and with classroom work to be assessed by printed tests. The SRA Verbal and non-verbal Intelligence Tests were used to assess cognitive abilities. It was argued that these tests were suitable for students of 12 to 17 years of age. At each grade level, the cognitive abilities of the Indian students, as measured on the non-verbal form, averaged about the same as averages for non-Indian students of similar ages. However, on the two components of the Verbal Tests, namely language and quantitative, the Indian students averaged far below the means for non-Indian students. That is, on the Verbal scales, the average Indian students were approximately 3 years and 7 months behind the average non-Indian students of similar ages. (p. 22)

Further assessment of both verbal and non-verbal IQ scores of Indian children were carried out by Wiltshire and Gray (1969). They studied the performance of 66 Indian students in northern Saskatchewan, using the Goodenough "Draw-a-Man" (Harris, 1963) and Raven's "Progressive Matrices" (1938) tests. Their assessment

showed that, on the average, the scores for the Indian students were close to that of the English students on the non-verbal (DAM), while on the verbal test, the Indian students scored about 20 points below the English norms. The results have no validity with non-English or limited English-speaking children. The importance of this result lies in that the fact that Indian children are at a disadvantage when performing in tests in a language with which they are unfamiliar. Similar results were observed among Indian children in the United States.

An earlier study was carried out by Havighurst, Gunther and Pratt (1946) on Indian children in the United States. The Goodenough "Draw-a-Man" test was administered to 325 Indian children between ages of 6 and 11. The general conclusion was that Indian children were superior to white children on the Draw-a-Man Test. It was hypothesized by the authors that the environment strongly influenced the performance of the Indian children because they kept close contact with the world of nature and with their indigenous cultures in which they were specially stimulated to observe accurately.

Vernon (1966) used a battery of tests to investigate a considerable range of abilities, as opposed to previous investigations in which verbal and non-verbal performances were tested. The sample included 50 Eskimo and 40 Indian students, all of whom were approximately 11 years old. The results of the verbal tests demonstrated serious deficiencies in both the Eskimo and Indian samples, while more favorable results were obtained on the non-verbal tests - their mean scores being similar to the mean scores

of some youths of England of the same ages. These latter scores involving inductive reasoning and perceptual spatial tests were linked with a more resourceful and independent mode of existence.

MacArthur (1969) also used a battery of tests -- verbal, non-verbal and achievement - to assess the cognitive abilities of some Eskimo, White, Indian and Metis children between the ages of 9 and 12. The sample consisted of 87 Eskimo and 33 white students from Inuvik and Tuktoyaktuk, N.W.T. The Indian-Metis group consisted of 56 students from Faust, Alberta. The results again demonstrated that the Eskimo and Indian and Metis samples had higher capabilities in the non-verbal area while performing poorly in the verbal area.

Similarly, Fraser (1969) investigated the general intelligence of Indian children in British Columbia. The sample, selected from both rural and urban schools, consisted of 62 Indian children, 35 of whom were from the Merritt School District and 27 from the Vancouver School District. The test used was the Stanford-Binet Intelligence Scale Form L-M. The results showed relatively low performance by the Indian students - both rural and urban when compared with non-Indian students. More significantly their IQ's,as measured by the scale, were similar.

Every paper so far reviewed has demonstrated that Indian students perform relatively poorly on tests involving verbal ability, compared with non-Indian students. Cultural variations have been suggested as a possible factor to account for this difference in performance. Previous researchers made no attempt to control for variables in order to obtain more refined estimates

of the effect of these cultural variations. They were concerned mainly with identification of the areas of strengths and weaknesses of the Indian students.

More recently, attempts have been made to control for some variables in order to provide more specific information about these weaknesses. Taylor and Skanes (1976), for example, conducted an investigation to measure the intelligence of Eskimo children using socio-economic status as a variable. They compared a sample of children from the Labrador Coast on three intelligence tests. The sample consisted of 22 grade 1 Eskimo and 14 non-Eskimo children all about 7 years old. The children also belonged to fishing families which placed them in a low socio-economic position. The results showed that the Eskimo and non-Eskimo children had no significant differences in either verbal-educational or reasoning abilities.

Using a similar theme, Gaddes, McKenzie and Barnsley (1968) earlier compared the non-verbal abilities of a group of Indian children from a rural region with non-Indian children, their ages ranging between 6 and 14 years, enrolled in grades 1 to 7. The subjects consisted of 124 elementary school children from both Salish and Kwakiutl tribes and White children, all of low socio-economic status, in British Columbia. The tests used were the Block Design Test, Porteus Maze Test, Goodenough Draw-a-Man Test, and the Cattell Culture Fair Test. Despite low socio-economic status, the Indian children did better on particular non-verbal tests than some white children, demonstrating a slight spatial

superiority, despite the fact that no one owned puzzle books or blocks.

Marjoribanks (1972) investigated the relationship between intellectual test performance and home environment. The sample consisted of 100 boys, 11 years old, selected from 5 Canadian groups: Indian, and non-Indian students which included Canadian students of French, English, Jewish and Italian origin. Using the California Test of Mental Maturity and the SRA Primary Mental Abilities tests, he studied their verbal, number, spatial and reasoning abilities. In the area of verbal ability,the Indian students and students of French Canadian origin had the lowest scores. On the spatial ability dimension, the English Canadian students had significantly higher scores than the Indian and French Canadian students. Finally,on the reasoning ability measures, the scores of the Jewish and English Canadian students were significantly higher than the mean scores of the Indians and French Canadians. In the final stage of the analysis, the relationship between ethnicity and mental abilities was examined, when family environments were controlled. The effect of ethnicity, for the verbal, numerical and reasoning dimensions, was significant. The smallest effects for environment and ethnicity, in relation to mental abilities, were found for the spatial and reasoning dimensions. These results were significant in that they demonstrated that verbal and numerical factors were influenced by cultural factors, among others.

In an earlier study of the degree of acculturation on achievement, Snider (1961) compared the achievement scores of some Indian

high school students with their white counterparts. This study was undertaken in Lapwai, Idaho, where the Indians in the community were considered to be highly acculturated. For example, they did not speak their native language at home. The tests used were the Cooperative English Test of the Educational Testing Service and the Essential High School Content Battery. The results showed no significant differences between the scores of the two groups, indicating that achievement problems decrease with increased acculturation of the Indian students.

A similar study done by Rohrer (1942) on Osage Indian children in a public school in Oklahoma, seems to support the hypothesis of increasing levels of achievement with increasing acculturation. In this study cited by Havighurst, Gunther and Pratt (1946), the Indian and white children who attended the same public school in Oklahoma and lived in much the same way, came out about equal to and close to the white norms.

The significance of these studies lies in the fact that with increasing acculturation, Indian students would achieve at a much higher level than those who were less acculturated in the dominant culture.

Further evidence of the effect of culture on fostering specific abilities may be seen in the Arctic hunting culture of the Eskimos. The Eskimos have demonstrated a highly successful adaptation to the visually uniform arctic environment. Berry (1971) points out the importance of extreme sensitivity to visual details among the Eskimo hunters. Kleinfeld (1973) stated "...he must be able to recognize rotated visual patterns since he may return to an area from a different direction." (p. 344). Thus the environ-

mental demands made upon the Eskimos are not the same made upon urban dwellers.

The preceding reviews have shown that while Indians have achieved consistently low levels in the verbal areas of various tests, they have high achievement in perceptual-spatial areas. Further, it has been shown that this high achievement was independent of socio-economic status or home environment. The evidence suggests a cultural element which reinforces the perceptual-spatial skills of Indian children. Vernon (1966) appropriately pointed out that the main reason for low verbal achievement is in the "...tenacity with which Indian groups rejected acculturation." (p. 192) The tests themselves are usually but not always in English, a fact which itself introduces difficulty for Indian students. Moreover, poor performance in areas of verbal achievement is accentuated by the discrepancy between language usage in the home and school.

In this chapter, it was shown that Indian children tended to do well on non-verbal tests, while performing relatively poorly in verbal tests. The demonstration of intelligence levels among Indian children, that were equal to those of white children, indicate that Indian children have the capacity to learn as well as non-Indian children. However, they are at a great disadvantage in areas of verbal learning, because the medium is usually the English language, with which most Indian children are unfamiliar.

Chapter III

LINGUISTIC PROBLEMS OF INDIAN CHILDREN

The preceding studies have demonstrated the weak performance of Indian children in verbal areas. A conflict exists between the language of instruction in the schools, English, and the language most Indian children communicate with at home and in their community, an Indian language. Language is a complex issue with many variations from community to community. For the child who comes from a non-English speaking home, as is the case in many northern areas of Canada, the problem is to learn a new language. Children tend to get discouraged at their failure to communicate with the teacher and vice-versa. (Hawthorn, 1967, p. 129). The effect of this is to alienate the child from the school.

The relationship between alienation and achievement was investigated by Franklyn (1974). His subjects included 54 Indian and Metis and 54 non-Indian grade 9 students from the Mackenzie District of the Northwest Territories. They were administered the following tests: Kolesar's Alienation Questionnaire, the Grade 9 Alberta Battery of Junior High School Achievement Tests and the SCAT - Level 3 Aptitude Test. Among his conclusions, he noted a significantly lowered achievement among the Indian and Metis students in Language, Science and Aggregate achievement, all of which he attributed to language or reading difficulties.

The existence of language deficits was demonstrated in a study of Indian children by Michelson and Galloway (1973). Their subjects for the study included 30 Indian and 32 non-Indian children

entering kindergarten or grade 1 in a school district on Vancouver Island, British Columbia. In all cases English language was spoken at home. They were tested by the Boehm Test of Basic Concepts (BTBC) during the first 2 weeks of the school year. The results of the study indicated that Indian children were likely to begin school with specific disadvantages in the development of verbal concepts when compared with their non-Indian peers.

Weakness in English language produced grade retardation. This was demonstrated by Elliott (1973) who studied some grade 1 Indian students of Nova Scotia whose language was Micmac. This effect was reduced by pre-grade orientation. Similar results were reported by Mickelson and Galloway (1969) who conducted an enrichment program with Indian children from four Vancouver Island reserves. They used materials in English which facilitated specific verbal patterns.

The relationship between linguistic background and non-verbal intelligence was investigated by Bowd (1972). The subjects included Indian and Metis boys aged 12 and 14 years from four cultural groups in Western Canada, together with a sample of white boys of the same age from Calgary, Alberta. The Indian and Metis samples included 29 boys between grades 4 and 7, from Bella Bella British Columbia; 30 boys between grades 4 and 8, from the Blackfoot Indian reserve in Cluny, Alberta; 36 boys from the Stony Indian reserve of Morley, Alberta, between grades 4 and 7, and 42 Metis boys between grades 4 and 8 from Lac La Biche, Alberta. They were all administered the Standard Progressive Matrices (Rave, 1938) and the Mill Hill Vocabulary Scale, Junior Set A. The result

showed that there was positive correlation between grade level and verbal ability among the Indian samples; also the paternal use of English in the home correlated positively with vocabulary and grade level. Despite the diversity of the cultural environment of the Indian groups, they all demonstrated a poor development of English language skills and vocabulary, when compared with white children.

While many reports established the serious handicap experienced by Indian children, in the area of verbal ability, others attempted to identify the more specific factors involved in this weakness. Weaver and Weaver (1967) studied the psycholinguistic abilities of culturally deprived negro children. The criteria used to define culturally deprived were: housing, education of parents and occupation of parents. The subjects included 3 groups of children drawn from a project for the Early Training for the Culturally Deprived. They were administered the Illinois Test of Psycholinguistic Abilities. The results of this test showed that these children scored significantly lower on subtests involving auditory and vocal channels than on visual and motor channel sub-tests.

Other studies were carried out by Teasedale and Katz (1968) in New South Wales, Australia, on children of different ethnic groups. They studied 59 grade one children from upper and lower socio-economic status of European descent, and aboriginal descent. The aboriginal children came from homes where the fathers were employed, if at all, in semi-skilled or unskilled occupations. The children were administered the Illinois Test of Psycholinguistic Abilities (ITPA) and the Peabody Picture Vocabulary Test (PPVT). The results

of the tests showed that the aboriginal children displayed severe disability in tests involving auditory and/or vocal components.

Similar studies were done by McConnell, Horton, and Smith (1969) on negro and white children enrolled in day-care centres in Nashville, over a period of three years. The tests used were the PPVT and ITPA. They reported that in negro children the poorest level of functioning was found in Auditory-Vocal Automatic Subtest. On the other hand they noted superiority in negro visual capacities.

Lombardi (1970) carried out similar studies on Papago Indian school children to measure their psycholinguistic abilities using ITPA. The subjects included 80 Papago Indian children from Tucson, Arizona. Half of the children attended reserve schools while the other half attended integrated schools with other ethnic groups. The Papago are among the poorest tribes in the entire U.S. In their analysis, they noted that, while the Papago children were superior to the normative sample in the visual sequential memory ability test, they had lower results in the auditory vocal tests.

It has also been observed by the writer, in two Indian schools in Manitoba, that Indian children showed poor auditory skills. In many cases, verbal instructions were misunderstood and had to be repeated or rephrased. It was also observed that attention spans were short. While students would take notes or instructions written on the chalk-board, they appeared to disregard verbal instructions, if continued for more than 5 minutes.

Deutsh (1963) in his study of disadvantaged children and the learning process, stated:

> In order for a child to handle multiple attributes of words and to associate words with their proper referents, a great deal of exposure to language is presupposed.... Knowledge of context and of the syntactical regularities of a language make correct completion and comprehension of the speech possible. This completion occurs as a result of the correct anticipation of the sequence of language and thought. The child who has not achieved these anticipatory language skills is greatly handicapped in school. Thus for the child who already is deficient in auditory discrimination and in ability to sustain attention, it becomes increasingly important that he have the skills he lacks most. (p. 173)

Unfamiliarity with the English language among many Indian students presents a barrier to learning. Since much of the classroom instruction is through the medium of the spoken word, most Indian children experience difficulties. This is compounded by the lack of emphasis on auditory skills among Indian people in their homes.

The growth of intelligence appears to depend in a large part upon adequate development of language and language depends upon the verbal climate in which the child lives. The Indian home is not usually verbally oriented. Hawthorn (1967) observed that standard everyday conversations among Indian children and adults were severely limited. Questions were often answered in monosyllables, while custom frequently demanded silence from children in the presence of adults. Generally, the Indian child comes from a home where an Indian language is spoken, and if English was spoken, it was often grammatically inaccurate and limited in vocabulary. The Indian child comes to school

with experiences that are radically different from those valued by the school system.

The language of instruction in schools is English, with which the Indian child is vaguely familiar. Olson and MacArthur (1962) made a study of the effect of foreign language background on intelligence test performance. The subjects were 432 grade 7 children from the Edmonton public schools, who spoke one of the following: German, Ukrainian, Dutch, Yiddish or Norwegian in addition to English. They were administered the following tests: Raven's Progressive Matrices, Cattel Test of 'g' Scale 2, Lorge-Thorndike Non-Verbal Intelligence Test Level 4, Holzinger-Crowder Uni-Factor Tests, California Short Form Test of Mental Maturity - Elementary and the Laycock Mental Ability Test. Analysis of the results revealed that students, who had considerable foreign language background, were handicapped in the conventional intelligence tests, while students with moderate foreign language background, and who spoke English less than one-half of the time, showed no significant handicap on the verbal intelligence tests.

In a similar study Lambert and McNamara (1969) studied the effect of instructing students in a language other than the child' mother tongue, on intelligence. The subjects were grade 1 English-speaking students from a suburb of Montreal, whose language of instruction was French. All of the subjects came from the same middle-class neighborhood. Following the period of instruction, the children were tested on intelligence, using the Raven's (1956) Progressive Matrices Test. In their conclusions, they stated that the experimental class appeared somewhat held back in their measured

intelligence. This evidence was ambiguous, however, as it was also observed with one control group.

In s related study, Keats and Keats (1974) investigated concept acquisition in bilingual children. The aim was to determine whether logical concepts, in weight conservation, acquired in one language could be transferred to another language. The subjects were 100 children between the ages of 4 and 7. Of these children, 35 were bilingual in Polish and English, 31 were bilingual in German and English, and 34 were Australian, who spoke English only. It should be noted that Polish and German, though culturally similar, are linguistically dissimilar. The results showed that the concept taught was acquired in either language spoken by the children. However, interference between languages was indicated in the German group in that, the earlier they had learned English, the poorer was their performance in both languages. Moreover, the children trained in Polish, tended to perform at a lower level in English, and showed deterioration on re-testing. This phenomenon was explained by the difficulty in transferring from Polish to the recently acquired English (due to linguistic dissimilarity between Polish and English). The results of this test are significant in that Indian children are similarly required to learn concepts in the English language, with which Indian languages may have few similarities and in which Indian children lack fluency.

In an earlier experiment of a similar nature, Liedtke and Nelson (1968) investigated the effects of bilingualism on mental

development, using concept acquisition in conservation of linear measurement as an instrument of comparison. The subjects consisted of 100 children from grade 1 in 6 schools of the Edmonton Separate School System. Of these children, 50 were monolingual and 50 were bilingual, each group consisting of 25 boys and 25 girls. The bilinguals received instruction in English and French, while the monolinguals were instructed solely in English. They were administered the Concepts of Linear Measurement Test. The results showed that bilingual students received significantly higher scores on the test, than monolinguals. This suggested that intelligence factors necessary for concept formation, seemed to be developed to a greater extent in bilingual subjects.

An experiment was carried out by Bowd (1974) on samples of monolingual and bilingual Indian students to examine the relationship between linguistic background and non-verbal intelligence. The sample consisted of 29 Indian boys from a northern British Columbia settlement, all of whom spoke English, and 33 bilingual Indian and English speaking Metis boys from a small northern Alberta settlement. Both groups of boys were between 12 and 14 years of age and considered comparable on socio-economic status. The tests used were the Raven's Progressive Matrices Test, to assess their non-verbal intelligence, and the Mill Hill Vocabulary Scale, to measure their verbal ability in English. The results of the test showed that the bilingual group scored significantly higher on the non-verbal intelligence test, while both groups showed no significant difference on the English vocabulary test.

All the foregoing reports have demonstrated that while Indian

children performed very well on tests of non-verbal intelligence, they all performed relatively poorly in verbal tests. Schubert and Cropley (1972), in a comparative study of verbal regulation of behaviour and IQ in Canadian Indian and white children, noted that Indian children lacked verbal reflective thought. They stated ".. the major difference between the northern Indian child and the urban white child seems to lie in the fact that the former does not habitually and spontaneously analyze his experience in verbal terms and does not formulate internalized rules that might guide him in new learning situations." (p. 300)

Murdock (in Samuda et al.) notes that the learning materials and resources traditional to Indian children are real tools, toys or people. (p. 299). This mode of learning using tangible materials is characteristic of Indian culture, as opposed to verbal analysis of experience which is more characteristic of the dominant middle class culture.

The weakness in verbal ability demonstrated by Indian children reflects the characteristic development of the culture. While they adjust adequately to the requirements of a traditional way of life, hunting, trapping , they have not developed the information processing strategies that would enable them to function adequately in a Western educational system. While not being intellectually inferior, the Indian child is affected by the fact that he has to learn in a language with which he is not familiar. The work of Keats and Keats (1974) also suggested that learning difficulties would arise in learning English while

his linguistic background is an Indian language, e.g. Cree or other Indian languages.

Chapter IV

CULTURAL INFLUENCES ON LANGUAGE CONCEPTUAL DEVELOPMENT

In every culture, the transmission of attitudes and feelings is through the medium of language. Each language is unique because it is tailored to meet the specific needs and express the values of that culture. Because the language of each culture is used within the context of that culture, the members of that cultural unit are conditioned to thought processes and expressions that are unique to that culture. Attempts to express these thoughts or to interpret the expressions of another culture by the standards of another may be frustrating or can lead to social conflicts.

Sapir (in Zintz, 1963) for example observed "language powerfully conditions all our thinking about social problems and processes." Whorf (in Zintz, 1963) added:

> The linguistic system (in other words the grammar) of each language, is not merely a reproducing instrument for voicing ideas, but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock-in-trade.

Moreover, Hertzler (in Zintz, 1963) noted that the language system and socio-cultural context of a society cannot be separated. Further, Goldschmidt (in Zintz, 1963) observed that language carried various experiences so that the hearer and the speaker experienced to some extent, that to which the verbalization referred.

In this chapter, it is intended to point out the influence of culture on language conceptual development and its implications for

the education of Indian children.

The various Indian tribes, like the people of many other cultures, developed their languages which adequately met their communication needs within their cultural and environmental contexts. In view of the fact that they are mainly hunters and gatherers, the emphasis in their tribal languages was in these areas.

It is not inconceivable then that linguistic difficulties should arise when Indian children are expected to develop concepts in a language with which they are unfamiliar and which often conflicts with their tribal language habits and thoughts.

In Canada 11 different Indian language families have been identified, each subsuming a number of different languages and dialects within these languages.

Burnaby (1976) reported that in the 1971 Canadian census, 312 765 people were reported to be of Indian or Inuit origin, representing 1.4 per cent of the total Canadian population. Of these 179 820 people, representing 0.8 per cent of the total Canadian population, reported that their mother tongue was an Indian or Inuit language. In addition, 137 285 people stated that an Indian or Inuit language was most often spoken in their homes. Of those who were reported to have an Indian or Inuit language as their mother tongue, 61 845 were between the ages of 0 and 11, implying that many of these students are among the present school population. (p. 63)

Studies of the linguistic abilities of the Indian have been well documented, pointing to weaknesses in their verbal abilities.

In many northern communities, children enter school with little or no knowledge of the English language, many speaking Cree or another Indian language. Kirkness (1973) for example, pointed out the difficulties Indian children face in school, such as understanding and using the English language. (p. 154)

While it would have been expected that Indian children would perform well in school, in view of reports that bilingualism has favorable intellectual consequences (Peal and Lambert, 1962), the various reports dealing with the effects of bilingualism on the intellectual and social development of the Indian child point to difficulties and retardations. Soffietti (1955) explains the causes as follows:

> ....most of the difficulties and retardation indiscriminately ascribed to bilingualism, are rather due to the bicultural aspects of the situation under consideration. It is the living in two distinct cultures, either overtly in one's internal life, that might create adjustment problems. It is a conflict between ways of life, beliefs and customs, value systems and not necessarily one between language systems....it is only by living in the culture where the language is spoken that the full meanings of its utterances are acquired. (p. 225)

While it is desirable that the Indian child become more proficient in the English language, there are many factors which influence the child's mastery of the language. Tireman and Zintz (1961) pointed out that some of these factors are: desire, amount

of exposure, socio-economic status, influence of leaders, schools, educational adjuncts, and elements common to the two languages under consideration. In many Indian communities, the children have limited exposure to the use of English language through the media and in the schools. In most cases the language used at home, the church and at community gatherings, is the mother tongue. Thus the child's exposure to English language becomes very much limited. Whatever skill the child develops in the use of English language has been acquired in the school. It has been observed that even in the classrooms, personal exchanges between students of some communities take place in the mother tongue. Also from the time the child leaves school in the afternoon until his return to school in the next day, he is immersed in his mother tongue, hearing, conversing and thinking. The learning of English language is also affected by the presence of common elements between it and the mother tongue. Zintz (1969) pointed out that the salient features included phonology and structure of the language, sentence patterning and problems in vocabulary development. (p. 152)

Whorf (1956) as an illustration of the differences in the structure of languages, for example, pointed out that in English, verbs take different forms in accordance with the temporal distinctions, past, present and future, while in Hopi, verbs emphasize duration, rather than time of occurrence. Similarly, in the Navajo language, certain verbs that refer to manipulation of things require special forms, depending on what kind of thing is being manipulated. One example cited is that one form of the object is round and thin; another for a long flexible object; still

another for a long rigid object. Thus Navajo grammar places emphasis on shape and form and material nature of things.

Another instance involving specific emphasis of Navajo grammar was provided by Hoijer (1951) who investigated some Navajo linguistic categories. He concluded that Navajo speech patterns emphasized movement, specifying directions and status of such movement in considerable detail. He drew a parallel between the nomadic nature of the Navajo and their emphasis upon the more minute description of movement.

The vocabularies of different languages also provided different perceptions of the world to their speakers. Whorf (in Cole, 1974) gave an example of the Hopi language in which a single word was used to describe all flying things except birds (airplanes, insects) whereas the English language has different words for each of these. He also pointed out the use of many words in the Eskimo language for snow, flying snow, slushy snow, dry snow, whereas the English language does not. This fact is indicative of the emphasis that the Eskimo culture places upon snow, which is important in their life style.

On the other hand the vocabularies of some cultures may not have words to describe some situations. Rivers (in Cole, 1974) pointed out that the language of the Murray Islanders had no term for the color blue. Cole and Scribner (1974) cited the case of the Zuni Indians of the Southwestern United States whose language does not contain separate words for colors in the orange-yellow range. (p. 44)

Different emphasis placed upon words and meanings in different

cultures appears to be a source of difficulty in learning across cultures. Lenneberg and Roberts (in Cole, 1974) investigated whether Zuni Indians would have trouble remembering colors in the yellow-orange section of the color spectrum, in view of the fact that the Zuni language did not distinguish between these two colours. They found that monolingual Zuni did make most errors in recognition of these two colors, followed by subjects who spoke both Zuni and English, while monolingual English speakers made the fewest errors.

The preceding examples, while they are non-Canadian, have been used to illustrate the unique relationship between language and culture. It is also an indicator of the kind of difficulties that Indian children face in being instructed in the English language, while his mother tongue is an Indian language.

Ijaz (in Samuda et al 1984) pointed out that, in the acquisition of concepts in a second language, a learner's native language may have semantic congruence, semantic overlap, disparate meanings or zero contrast. (p. 230)

The preceding studies are an indication of learning problems faced by the Indian child who speaks an Indian language and is being instructed in English. His ability to learn within the school system may be severely restricted because of language conflicts. But another factor that is of great significance to learning is the Indian child' auditory skills. His inability to decode the sounds of another language, other than his mother tongue, are also restrictive to his ability to learn.

Segall, Campbell, and Herskovits (1966) stated:

> In any language, sounds are organized into sets of phonemes used for distinguishing meaningful vocal symbols. In addition to phonemes, each language has many irrelevant, meaningless sound variations and unused potential differentia. The naive learner of a foreign language expects different words to be formed from what he believes are universally employed sound units. When the sounds in these new and foreign words correspond to those of his own language, there is no perceptual problem; on the other hand, his unawareness of the novel phonemic distinctions employed in the foreign language he has set out to learn is often a major obstacle to his progress. It is as if he were deaf to differences in sound that constitute irrelevant differences in his own language (allophones). (p. 34)

The Indian child brings with him to the classroom, speech and language patterns that are often restricted. Moreover, his auditory discriminatory skills for a language other than his own are often weak. Frequently Indian children complain about their inability to follow instructions given by the teacher. As a result of these problems posed by learning a second language the Indian child often loses the motivation for academic learning, which becomes a source of his disenchantment with school, often resulting in poor academic performance and finally,withdrawal from school.

In this chapter the significant relationship between language

and culture was demonstrated, as well as its importance in the academic achievement of Indian children who speak mainly a tribal language.

Chapter V

INDIAN VALUES AND CONFLICT WITH THE SCHOOL

In every culture, emphasis is placed upon values which are felt to be essential to the survival of that culture. Moreover, these cultural values influence,very profoundly, the way individuals view life, existence and mankind and their roles within their societies.

Kluckholm and Strodtbeck (1961) conceive of values as falling into the following five categories: the relationship between a person and others; the temporal focus of life; the relationship between man and nature; the spontaneity of human actions and the characteristics of human nature.

In Western society, traditional values emphasize the work success ethic, i.e. achievement of individual success through competitiveness. Also there is much emphasis on working for the future. Thus every individual sees education as equipping him for success in the future. Western beliefs stress the need for man to control nature in order to produce his comforts and to improve the human condition. Western culture also stresses democratic ideals and the Christian ethic such as tolerance, co-operation, regard for the welfare of others and respect for individuals.

The values emphasized by Western culture are different in many respects from those of the Indian ,on the preceding five value categories. The Indian cultures stress group co-operation and sharing of resources, rather than competition (Wintrob & Sindell, 1968). Great emphasis was placed upon group rather than

individual achievement. (Kirkness, 1973). For example, the writer has observed in the classroom that Indian children have a natural tendency to work in groups. This is illustrative of the emphasis placed upon co-operativeness in Indian cultures. The Indian possessed an unhurried view of time with no concern for the future. Among the Navajos, it was considered to be dangerous to talk about something too far in advance (Zintz, 1963, p. 358). Indian values stressed harmony with nature. Nature will provide for man if he will behave as he should and obey nature's laws. (Zintz, 1963, p. 183).

The Indian child comes to school with a value system that is peculiar to his cultural heritage. There is a wide gap between the Indian child's preparation and the demands of the school system. The conflict in culture between the Indian child and the school is also a barrier to the Indian child's success in school. This view has been expressed by many researchers in the field of education. Clifton (1977) stated:

> Specific groups of students may not succeed in the educational system because their general culture values are not congruent with the cultural values of the society or their instrumental values are not congruent with those required in the school. (p. 187)

Hawthorn (1967) stated:

> The young Indian child arrives at school with a cultural orientation, a set of values and a structured personality. He has an identity as an individual and as a member of a

> specific cultural group. This cultural orientation and values will have prepared him to value certain things in certain ways and to internalize goals, for specific reasons, shared with his community. To the extent that the school population holds different cultural orientations and values, his expectations and perceptions will differ from those of the others, and a situation of conflict will be created. (p. 122)

Similarly, Rohner (1965) drew attention to the discrepancy between the culture of Kwakiutl Indians of British Columbia and formal education. He stated:

> Conflict exists between the values and attitudes which the teacher attempts to transmit and those which are inculcated in the Kwakiutl child outside the school, and school experiences tend to controvert some of the basic learning which takes place in pre-school years and in non-school activities.

Value Conflict: The school comes into conflict with the Indian child's value system in the following areas: personal relations, learning styles, time orientation, discipline. Gue (1971) pointed out that conflict of Indian and white middle-class values was the source of lack of motivation and low school achievement among Indian children. He investigated the value orientations of 138 Cree and Metis adolescents, 30 parents and 129 teachers and administrators of the Northland School Division in Alberta. The most significant finding of the whole study was the wide divergence between Indian and non-Indian value orien-

tations involving personal relations. Indian students and parents demonstrated a preference for group goals over individual goals, while teachers stressed individual goals over group goals. The incongruence of values in this area was felt to be a source of intense stress among Indian students.

Competition: In the schools, the methods used during the course of instruction of Indian children frequently run counter to their socialization patterns. For example, the schools stress individualism and competitiveness as a teaching technique. This may take the form of questioning individual students or asking them to read aloud. In almost all cases, questioning was met with silence. This type of behaviour is characteristic of Indian culture. The Indian child does not answer questions because of his fear of answering incorrectly or appearing to be better than his peers. The writer has experienced this type of behaviour among Indian students in the classroom.

In addition students generally show a tendency to co-operate in many aspects of their class-room assignments. This is characteristic of Indian culture, but runs counter to the individualistic approach exercised by the school.

Studies on children of other Indian tribes seem to show that peer pressure plays a significant role in the Indian child's class-room conduct.

In a study of the Sioux child in modern white schools, Wax, Wax and Dumont (1964B) observed that tensions arising in the school situation are not so much between the child and the schools as between the child and his peer group. They stated:

> Teachers do encounter difficulties in conducting their classes because some pupils do not wish to recite publicly or do not with to be placed in a competitive situation with their classmates. The difficulty here is not direct conflict with white and Indian values so much as a struggle between school and Indian peer society. This peer society tends to organize about itself a set of values and behaviours quite distinct from those formally espoused by administrators as suitable for pupils. (p. 144)

A similar study on co-operation and competition was carried out by Miller and Thomas (1977), among Blackfoot Indian children. The sample consisted of 48 Indian and 48 non-Indian children between the ages of 7 and 10, from the Indian Day School at Standoff, Alberta. Co-operative behaviour was observed, using the Madsin Co-operation Board. The samples were required to make a pen pass through circles in a prescribed manner, an activity requiring co-operation. The results showed that there was a marked tendency for the Blackfoot children to co-operate with each other when it was adaptive to do so, and to inhibit competitive responses. It was also the observation of the writer that in Indian schools, among some Indian students, there was no desire to move ahead of their peers in class assignments. Those students expressed a preference to wait until other members of the class completed their class assignments. Such behaviour is typical of a value system characteristic of Indians and described by Spence (in Sealey and Kirkness, 1973) who stated:

> In Indian culture, sharing and generosity is expected and praised..... Individualism is absent; competition and aggression except within narrow limits, is negatively valued. (p. 59)

He further added that an Indian will not do anything until he is sure it is correct. It has been the writer's observation that Indian children generally displayed a relative slowness in completing assignments because of their concern for producing correct as well as neat assignments.

Time: The Indian child very often encounters difficulties in school, over lateness. The school insists on punctuality, while the Indian child has been taught to act according to his desires. The writer has experienced many instances in which students came to school late and indicated that their lateness was due to the fact that they arose from bed late.

Parents generally do not interefere in the personal life of the child as the child is left to make his own decisions. The school also demands economical utilization of time in the completion of classwork and all school related matters. Rohner (1965) pointed out, "Concern about delimitable time units leading to the concept of punctuality is important in the educational system and becomes a moral issue for many teachers. Villagers do not share the teacher's perception of time."

Future Orientation: Not only does the Indian child find it difficult to observe punctuality, but he also does not share the future orientation of the school. In his study of Stoney and Blackfoot Indian children, (1966) Vernon reported that, on a

"delay-of-gratification" test, 50 per cent of the Stoney boys and 68 per cent of the Blackfoot boys reflected a tendency to live for the present than the future. (p. 87)

Wolcott (1967) likewise suggests that the "fooling around" behaviour of Kwakiutl children which is often interpreted by teachers as "poor motivation and short attention span" is more an unhurried view of the cosmos. Indian students generally demonstrate an unawareness of the importance of time in the completion of classwork. They are often slow to complete tests or assignments. This is often misinterpreted by teachers and results in the student receiving low grades. However Indian students show a tendency to obtain the correct answers, which requires contemplation rather than speed. This aspect of their character is rooted in the Indian culture in which patience is a valued quality in life in the North. (p. 92)

It is difficult therefore for the Indian child, who was born in an environment from which all his immediate needs were acquired, to adopt a value system that is future oriented; to see the need for preparing himself for a future he cannot conceive or to value an education which has little relevance to his way of life.

Discipline: Indian students frequently experience conflict in the school in the area of discipline. The school system requires in all its students self control, obedience and respect for property as well as a work ethic. Among others, these requirements are often reinforced through the development of fear of punishment or loss of privileges. On the other hand, the Indian child has been taught, as part of his culture, to be

undaunted by fear. For example, Wintrob and Sindell (1968) describing the culture of Cree people, stated:

> Self reliance and independence are also important in traditional enculturation...In addition children have few limitations placed upon their behaviour. They are free to eat whenever and as frequently as they feel hungry...and, except in clearly dangerous situations...children are permitted to explore their natural surroundings either alone or in the company of siblings or playmates.....During childhood and adolescence the child learns to handle himself while alone in the bush, without getting lost, in all kinds of weather and with many different tasks to accomplish. (page 14-15)

Spindler, in his description of the education of Menomini children stated, "though subject to gentle constraints, Menomini children are supported and rarely threatened by authoritarian demands or crude violations of their person in the form of physical punishment." (p. 393)

Independence: The Indian child is taught and permitted a great deal of independence from an early age as well as freedom from punishment. He is trained to assume the duties of an adult from his childhood and receives reinforcement from his community. In the school, on the other hand, he is treated as a child and is expected to show compliance with the rules of school. The effect of the adult-like treatment and independence which the Indian child enjoys at home and in his community, usually affect his school

performance because it conflicts with the requirements of school. The Indian child usually decides upon his attendance at school and in the classroom, decides what he wishes to learn. Also homework assignments are not done, and there is very little or no parental pressure on the child to do anything the child does not wish to do.

The Indian way of life permits a great deal of freedom to the child. Murdock (in Samuda et al, 1984) points out that the Indian child is "conditioned to believe in and assume personal responsibility for his own education"(p. 299) In Indian cultures the learning activities are intended to benefit the child and his family in some tangible way.

Curriculum Irrelevance: The education offered by the school to the Indian child is seen as being irrelevant to his needs. Hawthorn (1967) wrote:

> The student has little concept of what he is gaining by attending school..... he cannot relate school activity with the future because of his lack of experience with the demands of life in an urban setting. His evaluations are made in the light of his immediate life to which education seemingly has little relevance. (p. 139)

The kind of education offered by the school system as well as the method by which it is imparted is quite different from that of the Indian cultures. This results in conflict of values between the school system and the Indian child's culture. For example, the emphasis of education in the school system is upon preparation for the future as well as individualism. On the other

hand, the Indian way of life emphasizes living for the present and group ideals. Thus the student demonstrates his indifference to learning in school and frequently drops out of school because he cannot see the value of his training to himself within his society. This failure of the Indian child to participate in education was blamed upon the school. Fisher (1969) stated:

> ....it is the educational system that fails the student and not the student who fails the system. In trying to be a good and successful Indian, the Indian student must often be a bad and unsuccessful student.

In this chapter it was shown that major sources of cultural conflict existed between the middle class ideals as propounded by the school system and the cultural heritage of the Indian children. The Indian children see the irrelevance of the education they are receiving to their lifestyles. In addition the Indian children, having the power to decide upon their education, decide to drop out of school.

Chapter VI

PARENTAL INFLUENCE AND INDIAN STUDENT ACHIEVEMENT

The support of the Indian people for education is an essential factor in the success of Indian students at school. This support is, however, very much dependent on their perception of how education can benefit their children. While they are very desirous of an English education for their children, they are fearful of it as a destructive force to what they value. This mistrust of education was apparent from the very early attempt of the Europeans to educate Indian children.

Parental Attitude: Lawton (1970) in his study of the attitudes of the Indian parents of Fort Rae towards formal education, stated, "....they realized that it was necessary for their children to have a formal education...but resented the fact that it destroys much of what they value."

Further evidence of the scepticism of Indian parents about formal education comes from Wintrob and Sindell (1968) who state:

> Most Cree parents reluctantly allow their children to attend school but feel that the effects are deleterious in many respects. Most parents say that children who have gone away to school for several years come back during the summer unable to speak Cree adequately, unwilling to help with household chores and generally "sucemuc" which can be translated as rebellious and disrespectful. (p. 24)

The parental suspicion of education is not unfounded in view of the fact that Indian students become incapable of living in

the traditional Indian way by means of trapping, fishing and hunting. Also they tend to lose the ability to speak their native tongue and lose their traditional values for shy, quiet and reserved behaviour for an aggressive, competitive behaviour (Wintrob and Sindell, 1968).

The Indian child is very often seen by his family as being unfit for life within his community and is usually unprepared for life in an urban setting. Hodgkinson (1970) stated:

> Pre-adolescent persons frequently returning after one or two years education in a residential or mission school began to forget many things about hunting, fishing, trapping and those associated skills which allowed Athabascan peoples to survive in the northern areas. The fact that no basic survival skills were even required through educational institutions perpetuated the situation. The result is that many young people become trapped because of inadequate preparation for earning a living either in the north or in southern cities. (p. 158)

While many parents who live in the traditional Indian way are reserved in their support for formal education, there are other parents who seem to have a positive influence on their children. Zentner (1962) compared parental behaviour and student attitudes towards high school graduation, of Indian and non-Indian students from both Alberta and Oregon. His subjects were grade 10 and 11 students of whom 52 were Oregon Indians, 304 Oregon whites, 115 Alberta Indians and 335 Alberta whites. Of the Indian students,

only a small proportion lived in either a town or city. One of the questions to which they were asked to respond related to the degree of disappointment their parents would show if the students did not graduate from high school. The result showed that both the Oregon and Alberta Indian students, 40 per cent Oregon Indian and 52 per cent Alberta Indian, had a great deal of parental pressure to think of going on to further education than did either the Oregon or Alberta whites, 26 per cent Oregon and 36 per cent Alberta whites. The response of the Indian group indicated that positive parental support would influence an Indian student positively in their educational achievement.

The writer has observed that on one Indian reserve where there is much parental interest in school affairs, such as a high rate of attendance at parent-teacher's meetings, Indian students tend to achieve much higher academically.

Parental Occupational Status: While parental support appears to be an essential stimulus to the success of Indian students, the effect of parental occupation on their aspirations seemed to be significant. This effect was demonstrated by Abu-Laban (1966) in his study of the impact of ethnicity on the aspirations of Canadian youth. His subjects consisted of 700 students, both Indian and non-Indian from a co-educational high school in the suburb of Edmonton, Alberta. The students were interviewed on occupational aspirations and their plans for college education, among other questions. The findings showed that 46 per cent of Indian boys had high occupational aspirations compared with 82 per cent of the Indian girls. The fathers of most of the Indian students were

classified as semi-skilled workers whereas most of the non-Indian fathers had skilled occupations. In addition, the study showed that the occupational aspirations of the Indian and non-Indian children were established before their entry into high school. The study showed that poor academic performance tended to discourage the children of manual fathers more than those whose fathers had non-manual occupations. More important, it tended to discourage the Indian children more than their non-Indian school mates.

This study is significant in that it demonstrates a strong desire on the part of Indian children to attain higher educational levels. However, there seems to be a lack of a strong commitment on the part of the parents due to different cultural values, which in turn discourages Indian children from making a full commitment to educational advancement. This absence of strong support for the school, on part of Indian parents, is in a large part due to the parents' unawareness of the requirements for formal education, as well as economic needs. Traditional Indian way of life requires each family member to make a contribution to the needs of the family. Thus children frequently have to accompany parents on their seasonal trips, trapping or fishing. This results in these children being away from school for extended periods of time. Where children could not help their families, it meant economic hardships for the family. When the Indian children return to school, they are usually behind in their classwork, and it is usually difficult to close the gap.

Home Life: The home life of Indian students also plays an important part in their success in school. Generally, in the home of the Indian

child, much of what the child learns at school is not reinforced. Hawthorn (1967) refers to the effect of these conditions in which he states:

> The lack of corrective feedback and paucity of objects provides the Indian child with few opportunities to discriminate perceptually and conceptually, and limits his experience with items that are familiar to most children. (p. 114)

The low educational level of many parents of Indian children affects them in many ways. The parent is generally unable to assist the child in any of his school assignments or due to a lack of familiarity with the requirements of formal education, the parent does not provide conditions that will be conducive to the child's academic progress. Very often the child comes from a home where no English is spoken or where English is spoken, it is a variant in which "English structure and words are used, but in which forms and meanings often vary from the standard ones in school." (Hawthorn, 1967, p. 129)

Ausubel (1965) points to the retarding effect of such conditions as these, on the child's intellectual development. He stated:

> It is in the area of language development, and particularly with respect to the abstract dimension of verbal functioning, that the culturally deprived child manifests the greatest degree of intellectual retardation.
>
> The culturally deprived home, to begin with, lacks the large variety of objects, utensils, toys, pictures, etc., that

> require labeling and serve as referents for language acquisition in the middle-class home. The child is also not spoken to or read to very much by adults. Hence his auditory discrimination tends to be poor, and he receives little corrective feedback regarding his enunciation, pronunciation, and grammar. Furthermore, the syntactical model provided him by his parents is typically faulty.
>
> .....he suffers from the paucity of abstractions in the everyday vocabulary of his elders; from the relative absence of books, magazines, and newspapers; and from the lack of example of a reading adult in the family setting. (p. 252)

Indian parental support is essential for the Indian child's success in school. However, even where the child demonstrates a desire to attain higher educational levels, the strong bond with Indian tradition makes it difficult for success in a formal educational system. Firstly, the parents view the school with suspicion because it tends to impose upon the Indian child a set of values which conflict with Indian traditions and values. For example, (Wintrob and Sindell, 1968) reported that Indian children who were away at boarding schools for long periods, tended to develop disrespect for elders, lose their command of their tribal language and became incapable of living in the traditional Indian way of life.

Secondly, the absence of parental involvement in the child's education, due to low parental educational levels, saps the initiatives of the Indian child. For example, the absence of stimulation or input into the child's formal education through child-

parent interactions is a factor for Indian homes. There is little verbal interaction between child and parent, as silence is a valued quality in Indian culture. There is also a tendency for parents to avoid interfering in the child's interests. These factors together influence the achievement of Indian children in a formal educational system, either directly or indirectly.

The significance of parental support to school achievement is indicated by Franklyn (1974) who stated:

> ...this lack of strong mutually reinforcing relationship between school and the Indian and Metis parents may result in insecurity, confusion, or a feeling of powerlessness. (p. 164)

Chapter VII

CULTURAL INFLUENCES ON LEARNING PROCESSES

The diverse abilities of various people of different cultures are an indication of the areas in those cultures which are important to the people. Each culture encourages and reinforces, by community approval, those activities and values which are essential to its survival.

Irvine (1969), in his study of the mental abilities of African children, pointed to the social control exerted by language, with the consequent development of "certain cognitive skills within its logic." He compared the choice of answers given by Nigerian fifth year primary school children with those given by American grades I and II children. They were asked to associate three words with the word "farm". Most Nigerian children chose the combination: boat, cow and dig. On the other hand the American children chose: goat, cow and pig. The choice of the word "boat" by the Nigerian children was an indication of their non-arid environment, while their preference of the word "dig" to "pig" was an indication of Moslem religious influences.

Other effects of the environment on cognitive processes was demonstrated by Dawson (1967) who compared the perceptual styles of Temne and Mende subjects of Sierra-Leone as a function of child rearing processes. These tribes differed significantly in terms of stress on conformity, authority, harsh discipline, group reliance and individual initiative. While the Temne were rated highly on maternal dominance and parental strictness, the Mende were more

lenient and encouraged individual initiative. The results showed that the aggressive Temne males were more field-dependent in perceptual style than the Mende.

In an earlier study, Berry (1966) carried out a comparative study of the Temne and Eskimo perceptual skills. While the Temne are rice farmers and very few hunt, their discipline is strict. On the other hand, the Eskimos are hunters, and very little control is exercised over their children. In addition, the Temne and Eskimo visual environments are different. The Temne land is covered with bush and other vegetation which provide a wealth of varied visual stimulation. The environment of the Eskimo is bleak perceptually. In winter, the whiteness of the land merges with the frozen sea, while in summer, vegetation consists of small plants and moss and lichens covering rocks. The samples consisted of both Eskimo and Temne subjects between the ages of 10 and 40, of both sexes. In addition, the samples included those who had contact with westernized environments as well as those who lived in relatively isolated areas. Firstly, they were tested on discrimination skills which required them to complete the drawing of geometrical figures with gaps after viewing them for 20 milliseconds. On the test, the Eskimo samples demonstrated a greater degree of awareness of minute details than their Temne counterparts.

Secondly, they were tested on their spatial skills, using the following tests: Kohs Blocks, Witkin Embedded Figures Test (EFT), Morrisby Shapes, and Raven's Matrices. The results demonstrated that the Eskimo samples greatly exceeded the scores of the Temne. More significant was the fact that contact with Western culture,

especially with Western education, produced significantly better scores by both Temne and Eskimo subjects. The overall conclusions suggested that cultural and psychological developments are related.

Psychological Differentiation: Further studies on the influence of culture on psychological differentiation was carried out by Berry and Annis (1974) among Indians from three different cultural groups: Cree, Carrier and Tsimshian, all of British Columbia. The Cree Indians represented examples of a hunting-trapping economy, while the Tsimshian were examples of those who subsisted on "marine agriculture." The Carrier Indians represented an intermediate group who pursued a hunting and fishing way of life, but with opportunities for some "marine agriculture."

The subjects consisted of both sexes between the ages of 18 and 25. They also included those who were traditionally as well as relatively acculturated. They were tested in the following areas: perceptual, social and affective behaviours, using Kohs Blocks and Raven's Matrices. The results showed that there was a very high level of field independence among all the subjects who were basically hunting and food gathering people. The level was observed to be much higher for the Cree Indians, who were the least acculturated among the sample, than for the Tsimshian Indians who were the most acculturated.

Field independence is apparently associated with specific cognitive abilities as was revealed in a study by MacArthur (1973). He made a study of the ability patterns of Nsenga Africans of Zambia and Central Eskimos of Canada. They were administered a

battery of tests, both verbal and non-verbal. In his results MacArthur noted:

> ...the hunting background of the Eskimo with its ecology demanding minute visual discrimination and spatial awareness for navigation, together with its upbringing encouraging independence and initiative, seems to have fostered not only a broad spatial-field independence cluster of abilities, but also a distinctive cluster of abilities involving inductive reasoning from non-verbal stimuli. (p. 244)

The Nsenga, with their agricultural background and upbringing more encouraging toward conformity and obedience, the field-independence cluster is not so broadly spatial for the adolescents. For all Nsenga age-groups, the inductive reasoning tasks merge with the verbal and educational tasks. (p. 246)

Similar studies by Dasen (1973) showed likewise that Australian Aborigines develop spatial concepts more readily than concepts related to number or measurement because the former are more ecologically and culturally relevant. The Australian Aborigines depend on hunting and food gathering, like the Indians, and travel for long distances in an arid environment, very much like Eskimos who live in the Arctic regions.

The preceding studies have demonstrated the influence of culture on cognitive abilities. Each culture ensures the development of those traits which are essential to the survival of its members. Thus food gathering peoples, such as some Indians, tend to develop strong spatial field independent abilities, while being poor in verbal abilities in English. Also in a formal educational

environment, the Indian students perform relatively poorly. This is due to the fact that schools stress more verbal and analytic skills together with middle-class cultural elements, which in most cases conflict with the high perceptual and field independent skills and value of the Indian child. Thus, the Indian child brings with him to the classroom skills and attitudes which do not equip him to function effectively in the middle-class oriented classroom.

These differences in skills and abilities of the Indian child however, do not imply an inferior intelligence. On the contrary, it requires adaptation in teaching approaches to meet his needs, such as placing "emphasis on non-verbal and spatial abilities" (MacArthur, 1978, p. 206).

Chapter VIII

SUMMARY AND CONCLUSION

Summary

It was the purpose of this review of literature to show that the school achievement of Indian children in Canada was largely influenced by culture.

It was shown that Indian children were not intellectually inferior, but on the contrary showed strengths in the non-verbal areas of intelligence tests, while performing relatively poorly in verbal tests because of unfamiliarity with the English language.

It was also shown that the English language possessed cultural elements which placed the Indian child at a disadvantage when he was learning through the medium of English in the classroom.

It was also shown that each culture tended to develop its own value system and consequently, a set of attitudes. The Indian value system was such that it conflicted with the value system of the school.

The value system of the school stressed individuality and personal achievement as well as a future orientation. This was contrary to the Indian child's culture which stressed group ideals as well as co-operativeness and a present-orientation.

It was also shown that parental support and encouragement were essential to the success of the Indian child in school. However, such support was often non-existent because of cultural as well as economic considerations.

Parents were often reluctant to make a commitment to school education because of fear that it did not equip an Indian child to live in a traditional Indian way. Moreover, exposure to middle-class ideals made Indian children reject the Indian way of life.

Conclusion

The review of literature indicates that the overall achievement of Indian children in Canada is related to the cultures of the various tribal groups. While there are differences among various tribal cultures, the essential factor in the academic achievement of Indian children is the differences between the middle-class culture of the Canadian school system and the Indian cultures. There is a need for curricula that are relevant to the needs of Indian children.

Finally, the cognitive styles of the Indian children are a product of their cultures and must be taken into account in educating them in Canadian schools.

NEEDED RESEARCH

The evidence presented in the preceding study has important implications for the education of Indian children of Canada. If verbal comprehension is a barrier to conceptualization, would audio-visual methods, such as computer-assisted learning help to improve the achievement level of Indian students in school?

In addition, if drop-out rates increase rapidly beyond elementary grades, to what extent is this a factor of increasing degree of abstract thought requirements? It has been suggested that older Indian students experience a greater degree of culture conflict in the schools. However, in view of the fact that secondary school requires increasing level of abstract conceptual development, investigations are necessary in this area to determine whether culture difference inhibits or retards abstract conceptual development. Its effects should be examined in subject areas such as science and mathematics. Such investigations would be of great assistance in the development of curricula and teaching methods appropriate for Indian students.

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