

ACCULTURATION, FAMILY FACTORS AND SCHOOLING
IN THE CENTRAL ARCTIC

CENTRE FOR NEWFOUNDLAND STUDIES

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ACCULTURATION, FAMILY FACTORS AND SCHOOLING IN
THE CENTRAL ARCTIC

A Thesis Presented to the
Department of Educational Foundations
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Submitted in Partial Fulfillment
of the Requirements for the Degree of
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by



Thomas Joe Wiseman, B.A., B.Ed.

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ABSTRACT

Using a locally adapted version of ten measures of attitudes which Joseph Kahl (1965) felt contributed to an accurate measure of achievement orientation, the value orientations of 57 students, both Inuit and White, in two Central Arctic communities, Cambridge Bay and Pelly Bay, were investigated. As well, the effects of ethnicity, year in school, father's occupation, sex and self-concept of academic ability upon verbal ability and four value orientations - orientation towards accomplishment, orientation towards achievement, orientation towards the future, and orientation towards integration with relatives - were investigated.

Pearson correlation coefficients were used to estimate the parameters of the models. Regression analysis was used to determine the effects of the independent upon the intervening and dependent variables.

Ethnicity, year in school, and father's occupation all were found to have moderate effects upon verbal ability with White students having a higher verbal ability than Inuit students, students who had been in school longer having higher verbal abilities, and students whose fathers had higher status occupations having higher verbal ability.

For the orientation towards accomplishment, it was found that White students were less modern than Inuit students. For the orientation towards integration with relatives, White students were found to be more modern than Inuit students.

Students who had been in school longer than other students were found to be more modern in their orientations towards achievement and

integration with relatives and less modern in their orientation towards the future.

Students whose fathers had a higher status occupation than other students were found to be more modern in their orientations towards achievement and integration with relatives and less modern on their orientation towards accomplishment.

Girls were found to have a more modern orientation towards achievement and a less modern orientation towards the future than boys.

Students with a higher self-concept of academic ability than other students were found to have a more modern orientation towards accomplishment and less modern orientations towards achievement and integration with relatives.

Students with a higher verbal ability than other students were found to have a more modern orientation towards integration with relatives and less modern orientations towards achievement and the future.

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CHAPTER I

Introduction

This chapter of the study includes a statement of the problem, a discussion of the significance of the study, a statement of some of the limitations and an overview of the remaining four chapters of the study.

The Problem

The Annual Report of the Commissioner of the Northwest Territories (1972:84) observed that the curriculum for the schools in the Northwest Territories (N.W.T.) was being revised to include many more resource materials directly related to the indigenous peoples of the North. In the same report, it was further stated that every effort was being made to incorporate aspects of native cultures into the N.W.T. school curriculum.

This effort on the part of the territorial government has manifested itself in several ways. First, the language of instruction in Kindergarten, Year One and Year Two is now, in many communities, the language of the native population. Thus, in communities which are predominantly Inuit, we find that Inuktitut is the language of instruction in Kindergarten, Year One and Year Two. In Year Three, the language of instruction in predominantly Inuit schools is fifty percent Inuktitut and fifty percent English. English is introduced as a second language in the students' third full year in school and becomes the major language of instruction in Year Four. Inuktitut is taught as a subject in all schools with available personnel and resources until the students enter high school. Thus, the mode of instruction has contributed to cultural inclusion by presenting

Inuktitut or some other native language as a part of the curriculum until the student enters high school.

Second, the curriculum has included reading materials which are relevant to the North. The Arctic Reading Series, Tendi Reading Series, and a series of readers by Nick Sikkuark are some of the reading materials about people and circumstances relevant to the North. The Nick Sikkuark stories are also written in Syllabics as are the Spence Bay Program and the Rankin Inlet Program. Thus, the curriculum includes both the experiences of people in the North as well as the written language of the people of the North.

Third, the Department of Education offers a Teacher Certificate Program (T.E.P.) in Fort Smith, N.W.T. Here, native students, from the N.W.T., who have an equivalent to Grade Ten education may enrol for a two year course, which, upon their successful completion of it, will enable them to teach grades Kindergarten to Three. Native students who have an equivalent to Grade Twelve and who complete the T.E.P. courses successfully may teach from Kindergarten to Grade Six. Thus, in schools which have T.E.P. graduates, students up to their fourth and possible their seventh year in school will deal primarily with instructors who can speak in their native language and who have been raised in the same cultural milieu. For obvious reasons, this is of major importance as an aspect of cultural inclusion.

Fourth, the Department of Education hires native Classroom Assistants to aid in instruction in community schools in the N.W.T. These assistants do not experience the same degree of autonomy as do the T.E.P. graduates as they must work under the supervision of a qualified teacher. They

function as instructors of Syllables and Inuktitut, as interpreters where ideas and concepts in the classroom may not be understood in English, as cultural consultants for Southern teachers, and as a liaison between the school and the community, and thus act as a major contribution towards cultural inclusion. Unlike T.E.P. graduates, Classroom Assistants are found in schools in all communities with an indigenous native population.

Fifth, the Government of the N.W.T. financially supports Local Education Authorities (L.E.A.) whose powers are stated in An Ordinance Respecting Education in the Northwest Territories (1977:21) and include the following:

22. Every community education society may:

- (a) organize, with the assistance and cooperation of the Superintendent, principals and teaching personnel, special programs for the education district, which may include material from the culture and life styles of the local people;
- (b) Advise on and assist in the establishment and operation of special, adult or vocational education centres in the district, review the selection of students for and their placement in special, adult and vocational programs and advise the Superintendent on these matters;

This has resulted in a major contribution toward cultural inclusion in the schools on the part of the community at large. For instance, in Pelly Bay, a small hamlet in the Central Arctic, community elders come into the school and teach students how to drum dance, how to play the traditional Inuit games, how to sew in the traditional manner and how to sing the traditional songs. These elders tell the old legends and also take students "on the land" to fish, hunt seal and caribou, build igloos and practice other skills necessary for

survival in the harsh northern climate. The establishment of the L.E.A. has enabled members of the community to have cultural input into the formal education of their children and has also given them a voice in determining which post-secondary programs their children enter.

Sixth, the territorial government consulted native groups in order to draft an education ordinance which was in keeping with the philosophy of the indigenous peoples of the N.W.T. The result was an ordinance which included articles like the one referring to the L.E.A., an ordinance which is representative of the various cultural perspectives found among the indigenous peoples of the N.W.T.

Seventh, the grouping of students in classrooms and their progression from year to year is not based on formal testing. The students' progress from year to year without fear of failure and without the sense of competition inherent in the graded schools which use formal testing as the criterion for advancement from grade level to grade level. This is in keeping with the egalitarian nature of native peoples of the North and as such contributes to cultural inclusion.

The teacher recruiting personnel for the Government of the N.W.T. in 1976¹ stated that the cultural inclusion programs now present in N.W.T. schools is designed to supplement the acculturative effects of schooling. The administrators of Northern education felt that after a child had been subjected to the school curriculum imported from southern Canada, particularly Alberta, the child was no longer capable of functioning adequately within the native culture. That belief was also held by members of the L.E.A.s in the Central Arctic. The L.E.A. members

¹ Personal communication to prospective teaching personnel in Holiday Inn Conference room in St. John's, Newfoundland (1976).

cite examples of sons and daughters who no longer are able to fit into community life after having completed a secondary or post-secondary education. They felt that the schools were responsible for this change in their children. In this respect, a case worker for Inuit Tapirisat of Canada (I.T.C.) reported that he kept his adopted son out of school because he wanted the boy to be a 'real Inuit' and that the school's influences would keep the boy from becoming one. The administrators of Northern education and the L.E.A. members felt that the aspects of culture which were transmitted by the schools were those of the non-native Canadian society. They felt that by including aspects of Inuit culture in the formal educational setting of schools in the Central Arctic, as well as aspects of the cultures of other indigenous peoples in schools elsewhere in the N.W.T., the children would incorporate enough of their own culture to function within native society as well.

The belief, held by the Government of the N.W.T., by the L.E.A. members, and by various native groups such as I.T.C., that the school plays a major role in the transmission of culture is supported by many studies. Rodriguez (1974), for example, pointed out that the role of teachers in communicating and enforcing ethnic ideology is an important one. Vanstone (1967), in a study of Alaskan Inuit, also pointed out that education had been a vital acculturative factor and that "young people were being drawn increasingly into the mainstream of American life by means of their involvement in formal education." Clignet (1968), in a discussion of French colonialist policy, assumed that formal education played a major role in the process of cultural assimilation. Asen Balikci, anthropologist and author of The Netsilik Eskimo, stated in a public

television interview that the territorial school in Pelly Bay was the greatest agent of cultural change affecting the people of Pelly Bay. This statement is particularly poignant in that Balikci studied the Netsilik people (Netsilingmiut) when they were still living a nomadic life and then returned to Pelly Bay to make his statement after the community was formed in the mid 1960's. Thus, in the N.W.T., the school was believed to be a major agent of acculturation and the Government of the N.W.T. along with various native groups in the N.W.T., have attempted to control the acculturative effects of schooling.

This study will attempt to determine if in fact the school is still playing an acculturative role or if action that the Department of Education has taken has in some way regulated the effect of Southern bias. This study will attempt to develop a measure of acculturation appropriate for use in the N.W.T. and will attempt to identify some of the variables which contribute to acculturation in the N.W.T.

Significance of the Study

Herskovits (1958) defines acculturation as:

...those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original cultural patterns of either or both groups.

The schools of the Central Arctic are a staging ground for continuous first-hand contact between Southern Canadian students, teachers and administrators and Inuit students, classroom assistants, community elders and teachers. This study will investigate the degree of acculturation of students in two schools in the Central Arctic. It will look at

some of the variables which we believe are likely to have a major impact upon the degree of acculturation of these school students.

Roy (1962) stated that:

...field research on acculturation can deal with almost any facet of diffusion of cultural traits from the entire inventory of either the donor or recipient culture.

Accordingly, empirical research dealing with acculturation should be designed to measure some facet of diffusion of cultural traits.

Nelson (1975) stated that "values are not inherited genetically, they are the learned products of environment." In this study we argue that a person's value system is affected by the culture to which he belongs. It is further argued that if the school is an agent of acculturation then it does, in some way, act to change a person's value system. Stated differently, a person's value system can be considered to be a cultural trait and the school acts as an agent of cultural diffusion by transmitting a different set of values to members of the recipient culture. It is further argued that if members of the recipient culture are being acculturated then they would exhibit this acculturation by some change in their value orientation.

A change in values as a result of schooling finds support in various studies. Seda Bonilla (1958:32) found that:

...years of schooling turned out to be the best criterion for distinguishing between liberal and illiberal attitudes toward civil rights and governmental authority.

Wells (1969:386) stated that:

...the still widespread commitment to traditional deference values may be in the process of disappearing as an even

larger percentage of school-age children continue their education beyond the elementary school level.

Both researchers were studying value changes and their relationship to schooling in Puerto Rico, a modernizing nation. In this respect, the present study is significant in that it will probe the nature of acculturation in the Canadian Central Arctic, an area which is also in the early stages of modernization.

This study is significant as well because the territorial government has taken steps to retard the effects of acculturation and it will shed some new light on the success of these measures.

This study is exploratory in nature in that very little empirical research has dealt with the nature of acculturation in the Central Arctic. This is significant for two reasons; firstly, many researchers have traditionally considered schooling as being a powerful institution in producing acculturated people² (Cole et.al., 1971; Roy, 1962), and secondly, despite the fact that decisions are made on the premise that the school is an agent of acculturation in the N.W.T., there has been little research which has dealt directly with the school's acculturative function. This study is significant in that it is an exploratory, empirical examination of the school's acculturative role in the Canadian Central Arctic where attempts have been made to deal with the problem of acculturation.

Because education in the N.W.T. is in a state of flux, this study will be significant in that it will reflect some of the changes that have occurred in the schools. It will enable us to see if some of the changes, which were introduced to curb assimilation, have had an impact.

This study will also be significant in that it will indicate whether it is appropriate to apply, to the Canadian North, findings from studies in other modernizing nations. It is significant, as well, in that it will look at several family factors and will indicate the role that these factors play in acculturation. It is important in that it will identify some of the factors that are important in the acquisition of verbal ability and in that it will indicate how important they are as predictors of verbal ability in the Central Arctic.

The consideration of the students' verbal ability in the English language is significant in that the language a person acquires is an important determinant of how well the individual learns the values of a particular culture. The extent of the students' English language ability may be an important determinant of the degree of acculturation of students in the Central Arctic.

This study also has significance in a country which is officially bi-lingual but which has many ethnic groups. The educational systems in various parts of Canada have often come under attack as one ethnic group or another seeks to focus attention upon its situation. Controversies rage over such issues as whether or not the language of instruction should be English, French, Inuktitut or some other language. One reason for the controversies is the belief that the school is substantially changing minority ethnic groups via the process of acculturation. Thus, a study of the relationship between schooling and acculturation can be seen to be particularly important in an officially bi-lingual but actually multi-cultural nation such as Canada.

This study should be significant to educators in the N.W.T.

because:

Modernism in values can be used as a predictor of educational aspirations and accomplishments in a way that goes beyond predictors based solely on position in the social structure (Kahl, 1968).

Limitations of the Study

One of the major limitations of this study lies in the fact that the population does not consist of all of the students in the Central Arctic. This limits the validity of the inferences made about the population in relation to the general population of students in the Central Arctic (Glass and Stanley, 1970:212). Nevertheless, it must be recognized that the two schools selected for this study, because finances were unavailable to sample all six schools in the Central Arctic, are similar to the other four schools. Government policy recognizes Spence Bay, Cambridge Bay and Coppermine as being the major settlements in the Central Arctic and Gjoa Haven, Holman Island and Pelly Bay as being the secondary settlements. Cambridge Bay was sampled from the major settlements and Pelly Bay from the secondary settlements. The situations in all settlement schools are very similar and we suggest that inferences can be validly drawn from the sample.

A second limitation lies in the biases which may enter this study depending on the degree in which students had difficulties in understanding and responding to the questions. The effects of these biases are unknown but it is to be noted that where students encountered difficulty reading the questionnaire, we orally presented the questions. This is in keeping

with the philosophy of education in the N.W.T. where oral English is an integral part of the daily school curriculum.

A third limitation rests in the population size of 57 subjects. Again, this will lead to questions being raised with regard to the validity of inferences made. It must be recognized that the total number of Inuit in all of Canada is less than 50,000 and that they are spread over an area which comprises 50 percent of the nation. This makes large sampling a very expensive and time consuming endeavour. We feel that this sample is large enough and representative enough to make some very real and interesting inferences.

A fourth limitation is caused by the attendance problem in N.W.T. schools. Cambridge Bay's yearly attendance is around 50 percent, causing the study to reflect only the values of those students who were present in school on the days in which the questionnaire was administered.

Overview

As previously mentioned, this study will attempt to determine if the school in the Central Arctic is still playing an acculturative role or if the acculturative effects of schooling have in some way been regulated. More specifically, the study will examine the effects of a number of factors such as the ethnicity of the student, the student's year in school, the occupation of the student's father, the sex of the student, the self-concept of academic ability of the student, and the intervening effect of the student's verbal ability, on the student's value orientation.

Chapter II will contain a review of the literature on modernization and will isolate a number of factors which contribute to a modern or traditional value orientation. Some of these factors have already been mentioned and literature will also be reviewed which suggests that these variables should be controlled in studies concerned with value orientations.

In Chapter III, the research methodology will be presented. This chapter will take an in-depth look at the selection of subjects, the measurement of the variables and the methods of analyses. Chapter IV will present the findings and a discussion of the findings. Chapter V will present a summary and conclusion with some interpretation of the findings.

CHAPTER II

Review of Related Literature

This chapter of the study examines the literature on verbal ability, modernism and values. The theory, the model and the hypotheses which are to be tested are also presented in this chapter. The model developed reflects the major research findings regarding selected family factors, schooling and modernization. The hypotheses are derived from the review of the literature and reflect the theory and the model. The model is used as a basis for the analyses presented in chapter IV.

Verbal Ability

This sub-section of the study deals with the relationship between the students' verbal ability and selected variables.

Research has indicated that there is definitely a relationship between an individual's ethnicity and his verbal ability especially when the verbal ability being considered is second language verbal ability. For instance, Hawthorne (1967:114) pointed out that the Indian child is at a distinct disadvantage when he has learned English from adults who use it as a second language. Beebe and Bulcock (1978) pointed out that tens of millions of the world's children attend schools where the medium of instruction in the content schools is a language other than the mother language. They went on to say:

...Some scattered evidence shows that these students may be handicapped in that the language barrier may constitute an overwhelming obstacle in understanding important school subjects.

The Inuit of Canada's Central Arctic are among the peoples of the world

for whom the language of instruction is a second language.

Ohanessian (1967) stated that language is found in a cultural and social context and forms a very important aspect of this context.

He further stated that:

...it seems necessary in considering the teaching of English to and the use of English by American Indians, to consider also the cultural factors that may affect language, language use, and language behavior.

The fact that Indian students seem to have less success on the verbal components of I.Q. tests has been examined by various researchers. For instance, Wiltshire and Gray (1969) compared the verbal and non-verbal I.Q. scores of 86 Cree students in northern Saskatchewan with the English norms. They found that, on average, the scores for the Cree students were close to the scores for the English students on the non-verbal test but on the verbal test the average Cree student was about 20 points below the average English student. In another study, Michelson and Galloway (1973) examined the ability of Kindergarten and Grade 1 students to use verbal concepts. The 30 Indian and 32 non-Indian students all came from homes in which English was the main language of communication. The results showed that the Indian students had significantly lower scores than the non-Indian students.

The ethnicity of the student has been found to have an effect upon the verbal ability of children in these and other studies (Hess, 1969; Bernstein, 1961; Angel, 1971; Moses et al., 1977; etc.). Ethnicity has also been shown to have an effect on the verbal ability of Inuit children (MacArthur, 1973).

In a study of Inuit children in four communities on the Labrador Coast, Taylor and Skanes (1976) reported that, as would be expected, children in higher grades have developed more complex verbal-educational abilities than children in lower grades. They did not explain whether the increase in verbal ability was due to schooling or maturation. However the belief that verbal ability increases with age is supported by research concerned with childrens' abilities at various ages (Bayley, 1956, 1970; Fowler, 1962; and others). Hall (1969) found that childrens' ability to recognize and discriminate between word meanings increases with age. Thus, the more years that a student has been in school the higher will be his verbal ability. Durkin (1970) noted that a child does not learn to read all at once; reading is a gradual process. The progression in difficulty of reading series' in schools assumes that verbal ability will increase with the number of years that a child spends in school - inherent in the educational system is the objective of increasing a student's verbal ability. In fact, the importance of the reading teacher is pointed out by Bulcock, Beebe and Clifton (1976) who state:

Because reading in both an industrialized and a Third World nation has been shown to be a crucially important resource mechanism in the structure of scholastic performances; because this mechanism accounts for the translation of socializing and linguistic resources into the additional desired resources of multiple-subject achievements; and since these achievements constitute important criteria in the allocation of scarce societal resources such as statuses, incomes and associated psychological satisfactions, it is easily concluded that no teacher is more important than the reading teacher.

The importance of the reading teacher and the emphasis of schools upon the development of verbal ability is also an aspect of education

in the N.W.T. so it must be considered that the year in school will have an effect upon the verbal ability of students in the Central Arctic.

Vernon (1965) concluded from a study of Jamaican, Eskimo and Indian boys that, in spite of linguistic handicaps, some of these children actually scored very well on tests of verbal intelligence and achievement. Vernon's results indicated that the most significant single influence in these various cultures was the quality of the family. The quality of the family is integrally related to the father's occupation and middle class situations have been reported to be more conducive to the development of verbal ability than have lower class situations (Hawthorne, 1967). A wide variety of research (Wolf, 1964; Smith, 1968; Greenberg and Davidson, 1972; and others) supported the notion that the father's occupation can be considered a factor which is related to a child's verbal ability.

Brandis and Bernstein (1974) also cite many studies which show that parents of middle and lower socioeconomic status differ significantly in their attitudes concerning the adjustment of their children to school and differ in the preparation of their children for school. They further reported that there were major differences between the social classes regarding the value of books and reading, and that this was related to learning and verbal ability.

The importance of the sex of the student as a factor affecting verbal ability has been shown in many studies. For instance, Bayley (1970) and Reilly (1971) both found that boys and girls differed significantly in certain skills such as verbal ability. Rosen and Ohnmacht

(1968) found that girls gave evidence of superior average reading ability over boys. Balow (1963) found that girls achieved significantly higher than boys in first grade reading success. Betancourt (1976), in a study of sex differences, in the language proficiency of Mexican American third and fourth graders, noted that females had higher scores on English language proficiency than males. Bereiter (1960), in a study of verbal and ideational fluency, in superior tenth grade students, found that verbal fluency measures generally favor girls throughout elementary school. Thus, it can be stated that the sex of the student must be considered as a factor when we discuss the verbal ability of students.

Brookover and Erikson (1969:61) pointed out that language is an acquired behavior. Brookover and Erikson (1969), Johnson (1970), and Coffin (1976), all pointed out that the child's self-concept influences and directs his behavior and as such must also affect his verbal ability. August et.al., (1975) investigated the relationship between a child's self-concept and his learning of affectively assessed verbal material. The sample was 134 fifth-grade children who learned paired associate nouns which they had pre-rated for likeability. The results indicated that there was a curvilinear relationship between self-concept and verbal ability. Carlton and Moore (1968) reported a positive, significant relationship between the development of self-concept and reading achievement. The relationship between self-concept of academic ability and verbal ability has been reported in many studies (Bodwin, 1959; Kerensky, 1967; Homze, 1962; Quandt, 1973; and others). It is expected that there will also be a relationship between self-concept and verbal

ability in this study of Inuit students in the N.W.T.

Thus, the ethnicity of the student, the student's year in school, the father's occupation, the student's sex and the student's self-concept of academic ability must all be considered as important factors which influence the verbal ability of students.

Modernism and Values

In this subsection, literature is reviewed concerning the relationship between modernism and values. The factors which affect the value system of an individual are also discussed.

Florence Kluckhohn (1961:4) defined value orientations as being:

...complex but definitely patterned principles...which give order and direction to the even-flowing stream of human acts and thoughts as these relate to the solution of 'common human' problems.

She further stated that "these principles vary from culture to culture."

Rokeach (1960:392) in a discussion of value systems, argued for variation of beliefs between cultures and stated that these variations occur in relative degrees. Thus, a useful, empirical, research instrument, for purposes of this study, should measure variance of beliefs and attitudes between cultures and also the relative degree of variance within a specific culture.

For the purposes of this research it is assumed that a value orientation or value system of a particular nature is in fact a cultural trait. That is, people from different cultures have different value systems. This belief is fostered by the literature. Rokeach (1973) and Kluckhohn (1961) as well as others, have presented empirical evidence to

substantiate their claims of varying value systems both between and within cultures.

Joseph Kahl (1968) noted that "modernism" in values can be measured. Kahl was mainly concerned with career values. Using the ideal type as a mode of theory building, Kahl (1968:10) posited that traditional society had one set of work values, and modern society another. The former, claimed Kahl (1968:10), could be described as follows:

Work is merged into life in a way that does not distinguish it as a separate activity with its own norms. Work is part of one's general status, and thus it is to be accepted without deliberate plans for change. Son follows father as peasant, artisan or merchant, and learns the techniques of work by watching his father. Life is personalized through ties to relatives, and their claims take precedence over the impersonal and abstract demands of career. Work and life are stable, and the individual takes a fatalistic view of his position.

Kahl (1968:11) contrasted that description of values in traditional society with this view of work in urban-industrial society:

Work in the city is separate from the rest of life in the sense that as man works in a place apart from his family, and his work takes on a momentum of social relationships unrelated to the extended family. A job is seen as part of a long career, which is a sequence of related activities starting with formal education specifically designed to prepare for work, leading through some type of apprenticeship or learning experience, toward full mastery of the job, and ending in formal retirement. Deliberate decisions are made to further a career which are based on values of impersonality, efficiency, and ambition to get ahead. New ideas and techniques are highly regarded, and general values of active control over self and envisionment are prized.

Kahl (1965) reported that the middle class is especially devoted to values stressing accomplishment, striving, and ambition to do better.

Kahl (1968:15) concluded that:

... 'modernity' was related to social-class background..., that it can be shaped by experience in school..., that

personal ambitions, interpersonal relations, formal education, technical skill - all are intertwined aspects of work and career values, and there is a clear line of influence from fathers to sons.

Modernism can be seen then to be a variable state of being which is influenced by many factors. There is no one predictor or set of circumstances which can be said to be responsible for the creation of a 'modern man'. As Kahl pointed out, such factors as experience in school, personal ambitions, interpersonal relations, etc., are all factors which influence the degree of modernity of an individual.

Kahl (1965) noted that:

...our notion of the concept 'value' implies a verbal system, an official ideology that is deliberately taught to new members of given groups or strata.

The key phrase here is that a value implies a verbal system. This notion is also supported by Cole and Bruner (1972:64) who defined verbal skills as "cultural amplifiers", useful for adapting to a culture. This notion is important because most of the Inuit subjects in this study use English as a secondary rather than a primary language. The significance of the idea of values as a verbal system is clear in the following statements of Brookover (1969:61):

To the extent that the more common cultural norms of behavior in various sub-societies are in harmony with those of the educational system, the child from these groups may be advantaged in acquiring the patterns of behavior taught in school. Also, to the extent that the common norms of behavior in sub-societies are divergent or different from those that are expected in the school the children may be disadvantaged in school learning. The language acquired is probably more crucial than any other aspects of behavior.

Values may be defined as "the normative standards by which human beings are influenced in their choice among the alternative courses of

action which they perceive", (Jacob, Flink and Schuchman, 1962:10). Brookover (1969:21) stated that "similarities of behavior within a given group and differences between groups are characteristic of what social scientists term 'cultural'." Values can be considered to be an integral part of culture and the language that a person acquires must be considered as an important determinant of how well the individual learns the values of a particular culture. In this respect it can be seen that the student's verbal ability may be an important independent variable when the student's values are considered. However, there are other factors which must also be considered as possible predictors of a value orientation.

Hawthorne (1967:122) argues that "the young Indian child arrives at school with a cultural orientation, a set of values, and a structured personality...". Presumably, Hawthorne assumed that when a child entered school he had developed a value orientation which was dependent upon his cultural and ethnic milieu. Secord (1967) concluded that the types of experience a child had was determined by the culture in which he lived and that this affected his attitudes and ambitions. Dawson (1973) pointed out that:

...in hunting and fishing societies where formal authority systems have been traditionally absent, as with the Eskimo, individuals will experience difficulty in internalizing the values of unfamiliar, modern, authority systems and unrelated attitudes.

This indicated that, in Canada, ethnicity may be considered to be a powerful predictor of modern values and that white students may have value systems which are much more modern than those of Inuit students.

Kahl (1968) pointed out that experience in school is a factor which influences the degree of modernity of an individual. In this study, the student's year in school is used as a proxy for experience in school. If the school is acting as an agent of acculturation by modernizing students then it should follow that the longer a student is in school, the more modern should be the student's values. However, as was noted in Chapter I, the Government of the N.W.T. has taken steps to moderate the effects of acculturation via schooling and experience in school. Thus, the student's year in school must be considered as a major independent variable when we consider the student's value system.

Kahl (1968) pointed out that even though socio-economic status does not always act in a conventional manner, it still must be considered when we study modern values. Moore, et.al. (1975) pointed out that:

...historically it has been a major role of parents to teach children in their early years that they have a place, a responsibility and a worthy future as individual persons in a society of human beings.

Darwin Miller (1972) reported that children perceive the attitudes of their parents and behave accordingly. Brookover and Erikson (1969:90) pointed out that the attitude of students is related to their social class. It is well recognized that social class is dependent upon the father's occupational status making it apparent that the father's occupation must be considered to affect the child's acquisition of values.

Kahl (1968) noted that "in the acquisition of career values, there is a clear line of influence from father to son." Father's occupation, in this study, is used as a proxy for the student's socioeconomic status (Bachman, 1970) and must be considered as an important independent

variable when we study a student's value system.

Cooker (1973) used the normative revision of the Short Form Vocational Values Inventory to assess the vocational values in elementary schools in Charlotte County, Florida. One of the important findings of the Cooker study was that "sex, differentiation in the choice of values has its origins before the junior high and high school years." It has been our experience in the Central Arctic that girls are encouraged to achieve by their parents to a greater degree than are boys. Parents take the attitude that boys are more independent than girls and are better equipped to survive without completing their education. Girls are seen to have two options; either they complete school or they become housewives. Boys, meanwhile, can become hunters, fishermen and trappers, or else they can become laborers, janitors or can work in places like the DEW Line sites. We believe, then, that girls will exhibit more modern values than boys and that the sex of the student must be considered as an important independent variable when considering value systems.

Kahl (1968) pointed out that personal ambitions constitute a factor which influences the degree of modernity of an individual. Personal ambitions are dependent upon the student's self-concept, with greater personal ambitions found in students with higher self-concepts. Brookover and Erikson (1969:16) define self-concept of ability as the individual's acquired "conceptions of his ability to learn various types of behavior through interactions with others whose evaluations are important to him." Values are learned behaviors and are affected by the student's self-concept in that the higher the self-concept of the student,

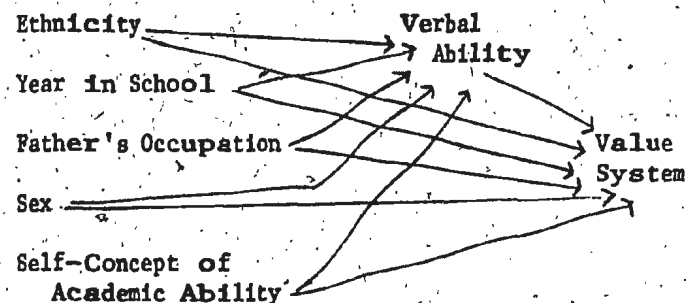
the greater will be the student's acquisition of values. We are concerned with the student's self-concept of academic ability. It follows that the higher the student's self-concept of ability, the more modernistic will be his values. A student who does not value academics is likely to have a low self-concept of academic ability and is consequently less likely to have modernistic values. Thus self-concept of academic ability must be considered as an independent variable when we study a student's value system.

The Theoretical Orientation

In the subsection on verbal ability, five independent variables - ethnicity, year in school, father's occupation, sex, and self-concept of academic ability - were identified. These same five variables, as well as verbal ability, have been identified as having an effect upon a student's value system. Verbal ability, then, has an intervening as well as an independent effect upon the value system. The resulting theoretical model is shown diagrammatically in Figure 1.

Figure 1

Theoretical Model



The Hypotheses

This subsection of the chapter contains a statement of the hypotheses which might be formulated on the basis of the review of the related literature and the theoretical orientation.

- Hypothesis 1: White children have a higher verbal ability than Inuit children.
- Hypothesis 2: Children who have spent more time in school than other children will have a higher verbal ability than children who have spent less time in school than other children.
- Hypothesis 3: Children whose fathers have a high status occupation have a higher verbal ability than children whose fathers have a low status occupation.
- Hypothesis 4: Girls have a higher verbal ability than boys.
- Hypothesis 5: Children who have the highest self-concept of academic ability have the highest verbal ability.
- Hypothesis 6: White children have more modern values than Inuit children.
- Hypothesis 7: Children who have spent more years in school do not have more modern values than children who have spent fewer years in school.
- Hypothesis 8: Children whose fathers have a high status occupation have more modern values than children whose fathers have a low status occupation.
- Hypothesis 9: Girls have a more modern value system than boys.
- Hypothesis 10: Children with a high self-concept of academic ability have a more modern value system than children with a low self-concept of academic ability.

Hypothesis 11: Children with high verbal ability have a more modern value system than children with a low verbal ability.

Summary

In Chapter II the related literature on verbal ability, modernism and values was reviewed. Five independent variables were identified as important in the consideration of verbal ability. They were ethnicity, year in school, father's occupation, sex and self-concept of academic ability. The same five independent variables were identified as being important in the consideration of value systems. Verbal Ability was identified as having an independent as well as an intervening effect upon value systems. A theoretical model was derived as a result of the review of the literature and this theoretical model was presented in Figure 1. As well, a total of 11 hypothesis were derived from the review of the related literature and were stated in the preceding subsection of this chapter.

Chapter III

Methodology

This chapter presents a description of the population, a description of the variables included in the study, a statement of the procedures used, and a short summary of the chapter.

Sample

The data for this study was obtained from a series of items on a 19 page questionnaire self-administered to a population of 57 students. The subjects consisted of 49 students from the Cambridge Bay Territorial school and 8 students from the Pelly Bay Territorial school.

The questionnaire was administered to 49 of the students over a 2 day period while the researcher was visiting Cambridge Bay for a Central Arctic Winter Games competition in December, 1977. Cambridge Bay has a population of approximately 800 and is the administrative centre for the Central Arctic Area of the Fort Smith Region. The community is predominantly Inuit with a fairly large white population. The school has an enrolment of around 260 students of which the majority are Inuit. Cambridge Bay has many modern facilities like flush toilets, television, radio and a Hudson's Bay store as well as several churches. Some of the Inuit population still participate in traditional activities but many, like the whites, now hold government as well as other wage-paying occupations.

The questionnaire was administered to 8 students in the Pelly Bay Territorial school while the researcher was resident in Pelly Bay in April, 1978. Pelly Bay has a population of 230 people of which less than 4 per-

cent are white. The school had an enrolment of 88 students, all of whom were Inuit. Pelly Bay has few modern facilities and the Netsilingmiut (people of the seal) of Pelly Bay were among the last groups of Inuit to "come off the land" to form a community.

The distribution of students by ethnicity and sex is depicted in Table 1.

Table 1
Distribution of Students by Ethnicity and Sex

Ethnicity	Sex		Total	Percent
	Male	Female		
Inuit	21	23	44	80
White	9	2	11	20
Missing Data			2	
Total	30	25	57	

There were 30 males and 25 female students with 2 students not responding on this item, for a total of 57. There were 21 Inuit males and 9 white males, 23 Inuit females and 2 white females. The Inuit students comprised 80 percent and the white students 20 percent of the population of students included in the study.

The students ranged in age from 10 years 4 months to 17 years of age. The students had spent from 3 years to 11 years in school with 85.4 percent of the sample having been in school from 6 years to 9 years.

The Variables

This subsection describes the measurement of the variables examined in the present study. Ethnicity, year in school, father's occupation, sex,

self-concept of academic ability, verbal ability as well as the dependent value outcomes are all described in this subsection.

Ethnicity

The ethnicity of the student was determined by the following questionnaire format:

Are you () Inuit

() Indian

() English

() Other _____

(please specify)

Students were asked to check the term which they felt best described their ethnic status. If they were unsure, as in cases where one parent was Inuit and the other white, the students were told to write in the ethnicity of their parents. There were 41 students who reported their ethnic status as Inuit, 10 students who reported their ethnic status as English, 4 students who reported their ethnic status as Indian, 1 student who reported ethnic status as being English-Inuit and 1 student who reported ethnic status as being French.

The English and French categories contain students who are white non-native students. The other 3 categories contain students who are native:

While there is at present no definitive answer in Canadian law to the question of 'who is a native person', there is sufficient legal and historical authority to allow the following conclusions to be drawn: the definition of 'native person' in Canada has traditionally been viewed in a manner combining both racial and social criteria...The question of how much Indian blood a person must have, and of how closely an individual must

be associated with a native community before he will be considered a 'native person' have not been answered. (Cumming and Mickenberg, 1972).

For the purposes of this study, students who responded that their ethnic status was either English or French were coded 2 and described as white (see Table 1). The students who responded that their ethnic status was either Inuit, Indian, or English-Inuit, were coded 1 and described as Inuit. Because the overwhelming majority of the native students were Inuit the ethnic term Inuit was used as an acronym for 'native person'.

Table 1 shows the distribution of students by ethnicity and sex. As was noted in the section describing the sample, 11 students were described as being white and 46 students were described as being Inuit.

Year in School

The year in school was measured by responses to a question which asked:

How many years have you been in school? _____

As was noted in the subsection describing the sample, the responses varied from 3 to 11 years in school. The responses were coded according to the reported year in school. Students who reported themselves as being in the third year in school were coded 3, students in the fourth year in school were coded 4, and so on, with students in the eleventh year in school being coded 11.

Table 2 presents the mean, standard deviation, skewness and kurtosis for the variable. The mean year in school was 7.11, with 85.4 percent of the students having been in school from 6 to 9 years.

Table 2

Descriptive Statistics for the Variables

<u>Variable</u>	<u>Means</u>	<u>S.D.</u>	<u>Skewness</u>	<u>Kurtosis</u>
Year in School	7.11	1.56	0.15	0.19
Self-Concept of Academic Ability	4.07	0.59	-0.49	-0.22
Verbal Ability	13.09	6.08	0.96	0.99
Accomplishment Attitude of Achievement Orientation	3.81	1.04	-0.40	-0.72
Achievement Attitude of Achievement Orientation	3.08	1.68	2.53	7.19
Orientation Towards the Future	3.38	1.25	1.48	6.36
Orientation Towards Integration with Relatives	2.9	1.21	0.10	-1.14

Skewness is a statistic needed to determine the degree to which a distribution of cases approximates a normal curve, since it measures deviation from symmetry (Nie et.al., 1975:184). The measure of skewness will take on a value of zero when the distribution is completely symmetrical. The skewness for the variable, year in school was 0.15 which means that the cases are clustered slightly more to the left of the mean with most of the extreme values to the right.

Kurtosis is a measure of the relative peakedness or flatness of the curve defined by the distribution of cases (Nie et.al., 1975:185). A normal distribution will have a kurtosis of zero. The kurtosis for the variable, year in school, was 0.19 which means that the distribution was more peaked than would be true for a normal distribution. However, both the skewness and the kurtosis were low enough to indicate that the distribution of the variable approximates the normal curve.

Father's Occupation

The variable father's occupation was determined by response to the question:

What is your father's occupation?

If the student's father had more than one occupation, the students were asked to include them all. The father's primary occupation was determined by conversing with teachers and principals as well as by observation. The father's primary occupation was then used as a measure of father's occupation.

The variable "Father's Occupation" was dichotomized so that the father's low status occupations were coded as 1 and the fathers' high status occupations were coded as 2. The Blishen (1967) socio-economic index was used to rank the occupations and to distribute them by category. Fathers whose ranking on the Blishen scale was 40.68 or higher were included in the high status category while fathers whose ranking on the Blishen scale was lower than 40.68 were included in the low status category.

There were 37 students whose fathers had low status occupations and 18 students whose fathers had high status occupations. There were two missing cases. There were 19 male students whose fathers had low status occupations and 18 female students whose fathers had low status occupations. There were 11 male students whose fathers had high status occupations and 7 female students whose fathers had high status occupations. It is interesting to note that a larger number of white students had fathers with higher status occupations than did Inuit students. This appears to reflect the realities of the N.W.T. where highly-skilled

southern Canadians tend to fill the high status occupations.

Sex

The sex of the student was determined by responses to the following questionnaire item:

Sex: Male _____

Female _____

Table 1 showed the distribution of students by ethnicity and sex. The number of males in the population was 30 and the number of females was 25 with 2 missing cases. There were 21 Inuit male students and 23 Inuit female students. The fact that 23 of the 25 female students were Inuit and the number of Inuit females was greater than the number of Inuit males, despite the fact that the overall number of male students was larger than the overall number of female students, lends credence to the observation that Inuit female students were encouraged to remain in school as an alternative to housework and marriage. As well, Table 1 indicated that there were nine white male students and two white female students.

For the purposes of coding, male students were coded 1 and female students were coded 2.

Self-Concept of Academic Ability

The variable self-concept of academic ability was measured by responses to the following questionnaire items:

1. I feel that I am as able as my best friends to get good marks in school.
2. I feel that I am able to go on to university.
3. I feel that I am as able as my classmates to get good marks in school.
4. I feel that I am able to complete high school.
5. I can get better grades in school if I work harder.

There were five possible responses to each statement of which the students were required to check only one. The possible responses were from Completely Agree to Completely Disagree. Completely Agree was coded 5, Agree was coded 4, Unsure was coded 3, Disagree was coded 2 and Completely Disagree was coded 1. Students were asked to respond to the Unsure category as few times as possible. The statements used were developed by Brookover (1969).

Table 3 shows the item total correlations for self-concept of academic ability as well as the intercorrelations between the five items. The intercorrelation coefficients are all positive and range from 0.08 to 0.43. These are high enough to indicate that the items are measuring the same general construct. This becomes especially clear when we note that the item total correlations range from 0.49 to 0.72.

Table 3

Item Total Correlations for Self-Concept of Academic Ability

	1.	2.	3.	4.	5.
1.	-	-	-	-	-
2.	0.23	-	-	-	-
3.	0.43	0.26	-	-	-
4.	0.22	0.17	0.19	-	-
5.	0.19	0.08	0.18	0.33	-
Item Total	0.72	0.59	0.71	0.57	0.49

Table 2 presented the descriptive statistics for the variable "Self-Concept of Academic Ability". The skewness was - 0.49 which indicated that the cases were clustered to the right with most of the extreme values to the left. The kurtosis was - 0.22 which indicated that the distribution was somewhat flatter than the normal distribution. However, the standardized item alpha reliability coefficient was relatively high at 0.62 (see Cronbach, 1951) which indicates that this is a conceptually meaningful scale.

Verbal Ability

The variable verbal ability was determined from a modification of the I.E.A. Word Knowledge Test (see Thorndike, 1973). The test was a 40 - item test in which the students were to underline two words which had either the same or the opposite meaning. The modification included the fact that the students were told whether they were looking for words with the same meaning or words with the opposite meaning. They were given, as well, a selection of four, rather than two, words, and were required to underline the two words which had the same or an opposite meaning. This reduced the odds of guessing the right answer to one out of six. The format of the items was as follows:

Underline the two words 1. quick precise slow fight
which you think mean
nearly the opposite thing.

Underline the two words 5. originate modesty scarce create
which you think mean
nearly the same thing.

The first example is item 1 from the Word Knowledge Test and the second example is item 5 from the Word Knowledge Test. Item 1 is an

example of an item in which the students were required to underline words which had opposite meanings. Item 5 is an example of an item in which the students were required to underline two words which had the same meaning.

Table 2 shows the descriptive statistics for the variable "Verbal Ability". The variable was derived according to the number of correct responses on the word knowledge test. Students who obtained six items correct were coded 6, students who obtained ten items correct were coded 10, etc. Table 2 indicated that the mean score of the students was 13.09 with a standard deviation of 6.08 from the mean. The standardized item alpha reliability coefficient was quite high at 0.83, which indicated that this was a conceptually meaningful scale and provided a reliable measure of the students' verbal ability.

Orientation Towards Accomplishment

Kahl (1965) isolated ten measures of attitudes which he felt contribute to an accurate measure of achievement orientation. The first 32 items in our questionnaire are attitude statements which were selected from those gathered by Kahl. The following two statements were used to indicate the orientation towards accomplishment:

1. A child should be taught from infancy to take the greatest pride in doing things well.
2. A mother ought to teach her child to try to do everything he does better than anyone else.

The students were instructed to check one of five possible responses. The five responses ranged from Completely Agree to Completely Disagree. Completely Agree was coded 5, Agree was coded 4, Unsure was coded

3, Disagree was coded 2 and Completely Disagree was coded 1. In order to increase the variance, the students were asked to check 3 as few times as possible.

Table 4 presents the item total correlation for the variable "Orientation Towards Accomplishment", as well as the intercorrelation between the two items. The intercorrelation coefficient was 0.31 which is high enough to indicate that the items are measuring the same general construct. This was especially clear in that the item total correlations, as expected, were quite high at 0.75 and 0.86.

Table 4

Item Total Correlations for Orientation Towards Accomplishment

	1.	2.
1.	-	-
2.	0.31	-
Item Total	0.75	0.86

Table 2 presented the descriptive statistics for the variable "Orientation Towards Accomplishment". The skewness was -0.40 which indicated that the cases were clustered to the left with most of the extreme values to the right. The kurtosis was -6.72 which showed that the distribution of cases was somewhat more flat than the normal distribution.

The standardized item alpha reliability coefficient was fairly low at 0.42, probably because only two items were used to construct this scale, resulting in a large equational denominator. This observation was

borne out by the fact that the item total correlations were quite high at 0.75 and 0.86.

Orientation Towards Achievement

The variable "Orientation Towards Achievement" was created from the following four questionnaire items:

1. The wise man lives for today and lets tomorrow take care of itself.
2. The best kind of job to have is one where everyone works together, even if you don't get credit for your own work.
3. When a man is born, his life is already planned, so he might as well accept it and not fight against it.
4. All I want out of life in the way of a job is a secure, not too difficult job, with enough pay to afford a nice ski-doo, boat and kicker.

The students were instructed to check one of five responses for each item. The five responses ranged from Completely Agree to Completely Disagree. Completely Agree was coded 1, Agree coded 2, Unsure coded 3, Disagree coded 4 and Completely Disagree was coded 5. Once again, in order to increase the variance, the students were asked to respond to 3 as few times as possible.

Table 5 presents the item total correlations for the variable "Orientation Towards Achievement", as well as the intercorrelation between the four items. The intercorrelation coefficients ranged from 0.05 to 0.28 which were sufficiently high enough to indicate that the items generally measured the same construct. The item total correlations ranged from 0.49 to 0.73 which tended to support the claim that the items measured the variable "Orientation Towards Achievement".

Table 5

<u>Item Total Correlations for Orientation Towards Achievement</u>				
	1.	2.	3.	4.
1.	-	-	-	-
2.	0.14	-	-	-
3.	0.15	0.28	-	-
4.	0.05	0.28	0.21	-
Item Total	0.49	0.73	0.62	0.62

Table 2 presented the descriptive statistics for the variable "Orientation Towards Achievement". The skewness was 2.93 which indicated that the cases were clustered more to the left of the mean with most of the extreme values located to the right of the mean. The kurtosis for this variable was 7.19 which indicated that the distribution was more peaked than would be true for a normal distribution. This indicated that this variable did not approximate the normal curve.

The standardized item alpha reliability coefficient, for the variable "Orientation Towards Achievement", was 0.51 which indicated that this was a conceptually meaningful scale and provided a reliable measure of the students' orientation towards achievement.

Orientation Towards the Future

The variable "Orientation Towards the Future" was created from the following two questionnaire items:

1. The secret of happiness is not expecting too much out of life, and being content with what comes your way.
2. With things as they are today, an intelligent person ought to think only about the present, without worrying about what is going to happen tomorrow.

The students were instructed to check one of five responses and in order to increase the variance were instructed to check Unsure as few times as possible. The five responses ranged from Completely Agree to Completely Disagree. Completely Agree was coded 1, Agree coded 2, Unsure coded 3, Disagree coded 4 and Completely Disagree was coded 5.

Table 6 presents the item total correlations for the variable "Orientation Towards the Future" as well as the item intercorrelation. The intercorrelation coefficient was quite low at 0.18. However, the item total correlations were quite high at 0.71 and 0.82.

Table 6

Item Total Correlations for Orientation Towards the Future

	1.	2.
1.	-	-
2.	0.18	-
Item Total	0.71	0.82

Table 2 presented the descriptive statistics for the variable "Orientation Towards the Future". The skewness was 1.48 and the kurtosis was 6.36. This indicated that the cases were clustered to the left with most of the extreme values located to the right. The high kurtosis statistic indicated that the distribution of cases was somewhat more peaked than the normal distribution.

The standardized item alpha reliability coefficient was low at 0.29. However, only two items were used to construct this scale, which resulted in a larger equational denominator. As noted above, this was also the

case in the variable "Orientation Towards Accomplishment". This observation was borne out, as well, by the fact that the item total correlations were quite high, being 0.71 and 0.82.

Orientation Towards Integration With Relatives

This variable was constructed from the following two questionnaire items:

1. When you are in trouble, only a relative can be depended upon to help you out.
2. If you have the chance to hire an assistant in your work, it is always better to hire a relative than to hire a stranger.

The students were instructed to check one of five responses to each item. The responses ranged from Completely Agree to Completely Disagree. In order to increase the variance, they were also instructed to respond with the third as few times as possible. Completely Agree was coded 1, Agree coded 2, Unsure coded 3, Disagree coded 4 and Completely Disagree was coded 5.

Table 7 gives the item total correlations for the variable "Orientation Towards Integration with Relatives", as well as the intercorrelation between the two items. The intercorrelation coefficient was acceptable at 0.44, and the item total correlations were very high, being 0.83 and 0.86. This indicated that the items measured the same general construct which supported the claim that the items measured orientation towards integration with relatives.

Table 7

Item Total Correlations for Orientation Towards Integration With Relatives		
	1.	2.
1.	-	-
2.	0.44	-
Item Total	0.83	0.86

Table 2 included the descriptive statistics for the variable "Orientation Towards Integration with Relatives". The skewness was 0.10 and the kurtosis was -1.14. This indicated that the cases were clustered slightly to the left of the mean with the extreme responses clustered slightly to the right. The negative kurtosis statistic indicated that the distribution of cases for this variable was somewhat flatter than normal.

The standardized item alpha reliability coefficient was 0.58, which indicated that this was a conceptually meaningful scale and provided a reliable measure of the students' orientation towards integration with relatives.

Procedures

The data was analyzed by the method of path analyses. Path analysis was originally introduced by Sewell Wright (1934:193) who claimed that:

...the method of path coefficients is not intended to accomplish the impossible task of deducing causal relations from the values of the correlation coefficients. It is intended to combine the quantitative information given by the correlations with such qualitative information as may be at hand on causal relations to give a quantitative interpretation.

Path analysis is mainly a method used to decompose and interpret linear relationships among a set of variables. Path analysis assumes that a causal order among a specific set of variables is known and that the relationship among these variables are causally closed. Path analysis does not prove causality, but it is a useful statistical method in that it demands a specification in the theoretical model of the order of causality (Duncan, 1966).

In this research our causal model is presented in Figure 1 and it is assumed that "Verbal Ability" is caused in part by "Ethnicity", "Year in School", "Father's Occupation", "Sex" and "Self-Concept of Academic Ability". It is also assumed that the six variables, as noted above, in some part are causally related to the students' value system.

Summary

This chapter has described the population, the measurement of the variables, and the procedures used in this study. Data were collected from 57 Inuit and white school students in the Central Arctic area of N.W.T. The following independent variables were constructed in order to determine their effects upon verbal ability and achievement orientation: "Ethnicity", "Year in School", "Father's Occupation", "Sex", and "Self-Concept of Academic Ability". "Verbal Ability" was constructed as an intervening variable in order that we might be able to determine its effects on "Achievement Orientation" as well. Four dimensions of "Achievement Orientation" were constructed. They were "Orientation Towards Achievement", "Orientation Towards the Future" and "Orientation Towards Integration with Relatives".

Path Analysis was the procedure used to decompose and interpret the linear relationships among the variables. The findings of the Path analysis are presented in the next chapter, Chapter IV.

Chapter IV

Findings

In this chapter, the direct effects of the independent variables "Ethnicity", "Year in School", "Father's Occupation", "Sex" and "Self-Concept of Academic Ability" upon "Verbal Ability" are estimated. Furthermore the effects of the independent variables upon the dependent variables "Orientation Towards Accomplishment", "Orientation Towards Achievement", "Orientation Towards Integration with Relatives", and "Orientation Towards the Future", with "Verbal Ability" acting as an intervening variable are estimated.

The Pearson Correlation Coefficients

First, in order to estimate the parameters of the models, Pearson correlation coefficients among all the variables presently being studied were calculated. The intercorrelations for all variables are presented in Table 8. The upper matrix contains the correlations and the lower matrix contains the number of cases upon which the correlations were computed.

It is important to note that some of the independent variables were highly intercorrelated thus introducing the problem of multicollinearity. The independent variable "Ethnicity" was very highly correlated with the variable "Father's Occupation". "Ethnicity" was also moderately correlated with the variable "Sex" as well as with the variable "Self-Concept of Academic Ability". The variable "Father's Occupation" was correlated with the variable "Self-Concept of Academic Ability".

TABLE 8

INTERCORRELATIONS BETWEEN THE VARIABLES

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀
X ₁		-.035	.523	-.269	.215	.236	-.307	.040	.422	.117
X ₂	55		.062	-.015	.094	.191	.071	.126	.152	-.218
X ₃	55	53		-.092	.337	.237	-.201	.315	.295	.028
X ₄	57	55	55		.095	.004	.108	.224	-.122	-.131
X ₅	57	55	55	57		.153	.132	.036	-.053	-.046
X ₆	57	55	55	57	57		-.265	-.011	.265	-.182
X ₇	54	53	52	54	54	54		-.140	-.326	.094
X ₈	53	52	52	53	53	53	51		.161	.564
X ₉	55	54	53	55	55	55	53	52		-.033
X ₁₀	55	53	53	55	55	55	53	52	53	

Variable identifications are: X₁, Ethnicity; X₂, Year in School; X₃, Father's Occupation; X₄, sex; X₅, Self-concept of Academic Ability; X₆, Verbal Ability; X₇, Orientation Towards Accomplishment; X₈, Orientation Towards Achievement; X₉, Orientation Towards Integration with Relatives; X₁₀, Orientation Towards the Future.

¹The correlation matrix is above the diagonal and the number of cases upon which the correlations are computed are below the diagonal.

Multicollinearity refers to the situation in which some or all of the independent variables are very highly intercorrelated, thereby preventing the multiple regression procedure from accurately evaluating the relative importance of the independent variables (Nie et. al., 1975: 340). This means that if the correlation between two variables is increased, the standard error increases dramatically--if the relationship reaches unity, the standard error is infinite (Blalock, 1963:234).

However, it is important to "think of multicollinearity in terms of severity rather than in terms of the existence or non-existence of the problem" (Blalock, 1963). This is because all relationships are subject to this problem to a certain degree.

Farrar and Glauber (1967:98) pointed out that econometricians have traditionally relied on a rule of thumb when estimating the effects of multicollinearity. This rule has been that one should worry about the condition when the correlations between independent variables are around .8 or .9. As was previously mentioned, the highest correlation between two variables in this study was between "Ethnicity" and "Father's Occupation". The correlation was .523, which is far below the value acceptable under the stated rule of thumb. Thus, even though multicollinearity is present in this study, it is felt that it is not severe enough to warrant the exclusion of any of the variables, nor is it felt that it will interfere seriously with the accurate evaluation of any of the variables.

The high correlation between "Ethnicity" and "Father's Occupation" indicates that white fathers generally have higher occupational status

than Inuit fathers. The lowest correlation (.004) is between the variables "Sex" and "Verbal Ability", which suggests that the sex of the students has no discernible effect upon their verbal ability.

It is interesting to note that all of the dependent variables were negatively correlated with one or more of the independent variables. "Orientation Towards Accomplishment", for example, was negatively correlated with "Ethnicity", "Father's Occupation" and "Verbal Ability". Likewise, "Orientation Towards Achievement" was negatively correlated with "Verbal Ability". As well, "Orientation Towards Integration with Relatives" was negatively correlated with "Sex" and "Self-Concept of Academic Ability". These negative correlations may contradict the theoretical perspective proposed in Chapter II. For instance, in Chapter II it was pointed out that ethnicity was the most powerful predictor of modern values and that white students should have much more modern value systems than Inuit students. However, we find that "Ethnicity" was negatively correlated with "Orientation Towards Accomplishment", which indicated that, in fact, for this value orientation, Inuit students have more modern values than white students.

The student's year in school was presented in the theoretical perspective as having no effect upon the student's value system even though Kahl (1968) had pointed out that experience in school is a factor which influences the degree of modernity of an individual. The student's year in school was negatively correlated with the dependent variable "Orientation Towards the Future" which indicated that the longer a student was in school, the less future oriented he would tend to be. In Chapter

II it was pointed out that the higher the status of the father's occupation, the more modern would be the values of the student. Interestingly, the father's occupation was negatively correlated with "Orientation Towards Accomplishment". This indicated that the higher the status of the father's occupation, the less modern was the student's orientation towards accomplishment. This trend continued with an indication that contrary to the prediction, boys had a more modern orientation towards integration with relatives than girls. It was also hypothesized that children with a high self-concept of academic ability would have more modern value systems than children with a low self-concept of academic ability. However, "Self-Concept of Academic Ability" was negatively correlated with both "Orientation Towards Integration with Relatives" and "Orientation Towards the Future", which indicated that the higher the student's self-concept of academic ability, the less modern the student's values would tend to be on these two orientations.

In Chapter II, it was hypothesized that children with high verbal ability would have more modern value systems than children with low verbal ability. "Verbal Ability" was negatively correlated with three value orientations: "Orientation Towards Accomplishment", "Orientation Towards Achievement", and "Orientation Towards the Future". This indicated that the higher the student's verbal ability, the less modern would be the student's values in regards to those three orientations.

However, the Pearson correlation coefficient is not a predictive statistic. It is a measure of association indicating the strength of the linear relationship between two variables (Nie et.al., 1975:279).

The correlation coefficients do not indicate the magnitude of the causal relationships between the variables. Part of each correlation coefficient is composed of indirect, joint, and spurious effects (Kerlinger and Pedhazzer, 1973). Thus, strong conclusions cannot be based solely on the intercorrelations between two variables.

Before proceeding to the next subsections of this chapter it should be pointed out that the dependent value orientations were in some cases negatively intercorrelated. "Orientation Towards Accomplishment" was negatively correlated with both "Orientation Towards Integration with Relatives" and "Orientation Towards Achievement". "Orientation Towards the Future" was negatively correlated with "Orientation Towards Integration with Relatives". This indicated that in the Central Arctic, the value orientations were separate and were not simply dimensions of achievement orientation. That is, the composite dependent value orientation variables are in fact measuring different values rather than dimensions of one value. The findings may also have been due to small population size.

Verbal Ability

In the theoretical model (see Figure 1) "Ethnicity", "Year in School", "Father's Occupation", "Sex", and "Self-Concept of Academic Ability" were related to the students' verbal ability. The review of the related literature pointed out that these variables were considered to be significantly related to verbal ability (Godfrey, 1970; Durkin, 1970; Brandis and Bernstein, 1974; Balow, 1963; and August et.al., 1975). The analyses presented in this subsection build upon the correlations

presented in the last subsection. In point, the major concern was in estimating the effects of the independent variables upon verbal ability. Table 9 includes the unstandardized regression coefficient (B), the standardized regression coefficient (Beta), as well as the standard error of B for the variables included in this section of the study. The R^2 value is also included in the table.

Table 9

The Effects of the Independent Variables Upon Verbal Ability

<u>Independent Variables</u>	<u>B</u>	<u>Beta</u>	<u>Std.Error B</u>
Ethnicity	2.887	.189	2.566
Year in School	.727	.187	.540
Father's Occupation	1.478	.115	2.151
Sex	.770	.064	1.748
Self-Concept of Academic Ability	.518	.050	1.524

$R^2 = .116$

The standardized regression coefficient (Beta) must be considered to be the statistic of most concern. As a rule of thumb, coefficients of .250 or greater are generally considered to represent strong effects, coefficients of between .250 and .100 are considered to represent moderate effects, and coefficients of less than .100 weak effects. Table 9 indicated that the variables "Ethnicity", "Year in School", and "Father's Occupation", all had a moderate effect upon the student's verbal ability. The two variables having the greatest effect upon verbal ability were

"Ethnicity" and "Year in School" with effects of .189 and .187 respectively. "Father's Occupation" had a moderate effect as well, being .115 but was only two-thirds as strong as "Ethnicity" and "Year in School". "Sex" and "Self-Concept of Academic Ability" were both weak with Beta coefficients of .064 and .050 respectively.

The Beta coefficient of .189 for "Ethnicity" indicates that this variable had the greatest single effect upon the verbal ability of the students. This finding supported Hypothesis 1 which stated that white children will have a higher verbal ability than Inuit children. The effect of the student's ethnicity on verbal ability supported the observations of Hawthorne (1967:114) who pointed out that the Indian child is at a distinct disadvantage when he had learned English from adults who use it as a second language. This observation was strengthened by the fact that the year in school of the students and the occupations of the students' fathers was controlled and even though these two variables had moderate effects upon the students' verbal ability, "Ethnicity" still had the strongest independent effect.

Inuit students had lower verbal ability than white students and this effect was not moderated by the year in school nor by the status of the fathers' occupation. This appeared to contradict the findings of Taylor and Skanes (1976) who claimed that Inuit and white children, when matched for grade placement and environmental circumstances, and after only one year in school, show no difference in verbal-educational or inductive reasoning abilities. However, this may be explained by the fact that the subjects in this study were all in elementary and inter-

mediate grades whereas the students in the Taylor and Skanes study were Grade 1 students. Also, many of the students sampled in the Taylor and Skanes study were from predominantly white communities on coastal Labrador whereas the subjects in this study were from predominantly Inuit communities on the Central Arctic coast of the N.W.T.. Political, social economic and educational factors in Newfoundland and Labrador may be quite different which may be likely to cause differences in the educational and environmental effects on verbal ability. It is important to note that the language and culture of the Inuit people varies from location to location. Thus, an Inuk from the Central Arctic may have a language and a culture which is very different than that of an Inuk from Coastal Labrador.

"Year in School" had a Beta coefficient of .187. This finding supported Hypothesis 2 which stated that children who have spent more time in school than other children will have a higher verbal ability than children who have spent less time in school than other children. This finding concurred with the findings of Taylor and Skanes (1976) who reported that, as would be expected, Inuit and white children in higher grades have developed more complex verbal-educational abilities than children in lower grades. This sort of finding may almost, in fact, be considered universal when other extraneous variables are controlled. The data indicated that schools in the N.W.T. were having some success in teaching English as a second language in spite of the ethnicity and socioeconomic effects. This is so because "Year in School" had a moderately strong effect upon "Verbal Ability" when "Ethnicity" and "Father's Occupation" were controlled.

"Father's Occupation" also had a moderately strong effect upon the students' verbal ability with a standardized regression coefficient of .115. This finding supported Hypothesis 3 which stated that children whose fathers have a high status occupation will have a higher verbal ability than students whose fathers have a low status occupation. This finding was consistent with the observations of Brandis and Bernstein (1974) who pointed out that there were major differences among the social classes and that this was related to learning and verbal ability.

This finding was all the more interesting in that "Ethnicity" was controlled. The finding seemed to indicate that there is a development of stratification among the Inuit and that these socioeconomic effects were acting in the same manner for Inuit students as they were for white students. The observation that stratification is developing among the Inuit was also pointed out by Dailey and Dailey (1961) and by Ferguson (1961). Nevertheless, it is important to remember that there were only nine Inuit students from our population who had fathers with high socioeconomic status occupations.

The variables "Sex" and "Self-Concept of Academic Ability" both had weak effects upon "Verbal Ability" with Beta coefficients of .064 and .050 respectively. This indicated that Hypotheses 4 and 5 were not supported by the data. It indicated that the sex of the child and the self-concept of academic ability of the child have very little effect on the verbal ability of the child when the other variables are controlled.

The R^2 for this analysis was .116 which indicated that the model (see Figure 1) explains 11.6 percent of the variance in verbal ability.

Orientation Towards Accomplishment

In this subsection, the multiple regression analysis findings for "Orientation Towards Accomplishment" are presented and discussed. Table 10 presents the effects of "Ethnicity", "Year in School", "Father's Occupation", "Sex" and "Self-Concept of Academic Ability" upon "Orientation Towards Accomplishment". The discussion of the Pearson correlation coefficients pointed out that there was a negative correlation between "Ethnicity" and "Orientation Towards Accomplishment". The standardized regression coefficient of $-.286$ indicates that "Ethnicity" had a strong negative effect upon the students' "Orientation Towards Accomplishment". This finding contradicted Hypothesis 6 which stated that white children have more modern values than Inuit children. For this value orientation, the findings suggested that the opposite, in fact, is true; Inuit children have a more modern orientation towards accomplishment than do white children. One possible explanation for this effect rests in the Central Arctic Inuits' love of competitive sporting events. Each year there is a Central Arctic Winter Games competition and every second year there are Arctic Winter Games. The schools in the Central Arctic have tournaments and intramural school teams. The Inuit Games event which is a part of all these tournaments involves substantial competition, with usually only one winner emerging for each game. The winner receives a medal and is accorded status by his peers for winning the particular event. Thus, the orientation towards accomplishment may be a value orientation which the young Inuit of today have incorporated or else is an orientation which has always been present in a culture

which had to struggle for survival against one of the world's harshest climates.

Table 10

The Effect of the Independent Variables Upon Orientation Towards Accomplishment

Independent Variables	B	Beta	Std. Error B
Ethnicity	-.746	-.286	.435
Year in School	.031	.047	.092
Father's Occupation	-.293	-.134	.365
Sex	-.005	-.003	.296
Self-Concept of Academic Ability	.411	.234	.258
$R^2 = .148$			

The second highest path coefficient depicted in Table 10 was that of the effect of "Self-Concept of Academic Ability" upon "Orientation Towards Accomplishment", being .234. This finding supported Hypothesis 10 which stated that children with a high self-concept of academic ability have a more modern value system than children who have a low self-concept of academic ability. The effect was a moderate effect but it does indicate that students with a high self-concept of academic ability tend to value accomplishment more than children with a low self-concept of academic ability. One component of Kluckhohn's (1961:4) definition of value orientations was that they give direction towards human acts. This suggests that students with a high self-concept of academic ability who value accomplishment are, in fact, likely to act upon this and desire to accomplish well in school.

The effect parameter for fathers' occupation was moderately negative at $-.134$, which contradicted Hypothesis 8 for this value orientation. Hypothesis 8 stated that children whose fathers have a high status occupation have more modern values than children whose fathers have a low status occupation, whereas, the findings suggested that, in fact, the reverse is true; that children whose fathers have a low status occupation have a more modern orientation towards accomplishment than children whose fathers have a high status occupation. This finding was consistent with the theory of Kahl (1968) who noted that socioeconomic status does not always act in a conventional manner. In modernizing societies a whole new set of factors come into play and may serve to offset the "traditional" or "conventional" effects of socioeconomic factors. For instance, new values or old values placed in a modern framework may offset the effects of socioeconomic status vis a vis a magnification effect. The desire for accomplishment may have been strengthened by the very fact of its reversal.

It is important to note that the "Year in School" and "Sex" effect parameters were very low at $.047$ and $-.003$ respectively. This finding indicated that the steps taken by the Department of Education may, in fact, be succeeding and that for this value orientation the effects of acculturation in the schools have been modified. The low path coefficients also indicate that Hypotheses 7 and 9 must be rejected. The path coefficients suggested that neither the year in school of the students nor the sex of the students had any effect upon their orientation towards accomplishment.

The R^2 for Table 10 was .148, which indicated that these variables explained approximately 15 percent of the variance of the students' orientation towards accomplishment.

However, when verbal ability was included as an intervening variable (see Table 11), the R^2 increased to .199 which indicated that the variables explained approximately 20 percent of the variance. The variable "Verbal Ability" had a Beta coefficient of $-.239$, which suggested that the higher the students' verbal ability, the less likely they were to have a modern orientation towards accomplishment. That moderately strong finding meant that there was no support for Hypothesis 11 with regard to this value orientation. That is, children with high verbal ability do not, in fact, have a more modern orientation towards accomplishment than children with low verbal ability.

Table 11

The Effects of Verbal Ability and the Independent Variables Upon Orientation Towards Accomplishment

Independent Variables	B	Beta	Std. Error B
Ethnicity	-.628	-.241	.432
Year in School	.061	.091	.091
Father's Occupation	-.233	-.106	.360
Sex	.026	.013	.291
Self-Concept	.432	.246	.254
Verbal Ability	-.041	-.239	.024
$R^2 = .199$			

The addition of "Verbal Ability" as an intervening variable reduced the negative effects of "Ethnicity" and "Father's Occupation". The "Ethnicity" effect parameter was reduced by 15.7 percent and the "Father's Occupation" effect parameter was reduced by 20.9 percent. This indicated that "Verbal Ability" had a mediating effect between these two independent variables (see Rosenberg, 1968) and "Orientation Towards Accomplishment". This suggested that some of the effects of "Ethnicity" and "Father's Occupation" are, in fact, being caused by "Verbal Ability". However, as was pointed out, these two variables, "Ethnicity" and "Father's Occupation", still had moderately strong effect parameters of $-.241$ and $-.106$ respectively.

The path coefficients for "Year in School", "Sex" and "Self-Concept of Academic Ability" have increased by the inclusion of "Verbal Ability" in the model for this value orientation. However, the variables "Year in School" and "Sex" still have rather low effects on "Orientation Towards Accomplishment". On the other hand, the effect parameter for "Self-Concept of Academic Ability" was increased by 4.9 percent. This increase caused "Self-Concept of Academic Ability" to emerge as the most powerful variable affecting the students' orientation towards accomplishment and lends more support for Hypothesis 10. The exclusion of "Verbal Ability" from the model had a suppressor effect upon the variables "Self-Concept of Academic Ability" as well as the variables "Year in School" and "Sex".

Orientation Towards Achievement

In this subsection, the multiple regression analysis findings for

the dependent variable "Orientation Towards Achievement" are presented and discussed. Table 12 presents the effects of the independent variables "Ethnicity", "Year in School", "Father's Occupation", "Sex", and "Self-Concept of Academic Ability" upon the dependent variable "Orientation Towards Achievement".

Table 12

The Effects of the Independent Variables Upon Orientation Towards Achievement

Independent Variables	B	Beta	Std.Error B
Ethnicity	-.327	-.078	.682
Year in School	.121	.112	.144
Father's Occupation	1.460	.413	.572
Sex	.847	.254	.465
Self-Concept of Academic Ability	-.343	-.121	.405
$R^2 = .194$			

The discussion of the Pearson correlation coefficients pointed out that there was a positive correlation between "Father's Occupation" and "Orientation Towards Achievement". The standardized regression coefficient effect parameter of .413 indicated that "Father's Occupation" had a very strong positive effect upon the students' orientation towards achievement. This effect parameter supported Hypothesis 8 which stated that children whose fathers have a high status occupation have more modern values than children whose fathers have a low status occupation.

This finding can be linked to Epstein's (1971) findings among 5th grade peasant children in Peru. Epstein noted that many highland school children display attitudes favorable to acculturation. Surprisingly, he found that contrary to a prior expectation the school children in less urban areas were on the whole significantly more favorable to acculturation than were children in more urban areas. Significant for the present study was Epstein's finding that this overall relationship was most pronounced among pupils with fathers of middle status occupations.

The second highest path coefficient depicted in Table 12 was that of the effect of "Sex", .254. That finding supported Hypothesis 9 which stated that girls will have a more modern value system than boys. Moreover, the effect parameter is relatively strong. The value that girls place on achievement may indicate a desire to escape the traditional role expectations for Inuit women. It indicated that girls may no longer be satisfied with becoming wives and mothers and reflects the attitude of young Inuit women that the scraping and chewing of the skins of caribou and seal are no longer desirable activities. These and other difficult and tedious chores were expected of women and are referred to as women's work. It appeared that girls may desire to escape the traditional role through achieving in school.

Surprisingly, "Self-Concept of Academic Ability" was negatively correlated with "Orientation Towards Achievement". The path coefficient of -.121 was moderately strong and the finding indicated that students with a low self-concept of academic ability value achievement more than students with a high self-concept of academic ability. This finding con-

tradicted Hypothesis 10 which stated that children with a high self-concept of academic ability will have a more modern value system than children with a low self-concept of academic ability. It is possible that students with a low self-concept of academic ability may value achievement more than children with a higher self-concept of academic ability because they perceive it as something which is desirable yet difficult to attain. Students with a high self-concept of academic ability may believe that achievement is relatively easy for them to attain and as such may not be placing such a high value on achievement. It is important to note that the variable "Self-Concept of Academic Ability" yielded two diametrically opposed findings. That is, "Self-Concept of Academic Ability" had a moderately strong positive effect upon "Orientation Towards Accomplishment" and a moderately strong negative effect upon "Orientation Towards Achievement". The diametrically opposed findings may have been a result of small sample size. However, some other explanations are discussed in Chapter V of this study.

The path coefficient for "Year in School" was moderately positive at .112. That finding contradicted Hypothesis 7 which stated that children who have spent more years in school do not have more modern values than children who have spent fewer years in school. This indicated that for "Orientation Towards Achievement" the school does contribute towards acculturation and that the longer the student is in school, the more modern will be his/her orientation towards achievement. Even though the Government of the N.W.T. has taken steps to supplement the accul-

turative effects of schooling it must be recognized that achievement is considered very important within most school systems. Even though there was no grade system present in the schools sampled for this study, there were still levels of difficulty present within each classroom. Students recognized if their peers were engaged in more or less difficult work and students who were able to progress through one or more readers in an academic year were awarded status by their teachers and peers. That status was considered desirable by the students and may have contributed towards the finding on this value orientation. That is, in Chapter II, it was pointed out that year in school, in fact, acts as a proxy for experience in school has been that status is accorded by peers and teachers for achievement then it is likely that students will value achievement more highly, the longer they have been in school.

"Ethnicity" had a path coefficient of $-.078$ which indicated that Hypothesis 6 was rejected for "Orientation Towards Achievement". The ethnicity of the student cannot be considered as a contributing factor when we consider the student's orientation towards achievement, in the Central Arctic.

The R^2 for Table 12 indicated that the variables explained 19.4 percent of the variance concerning orientation towards achievement.

However, when "Verbal Ability" was included as an intervening variable (see Table 13), the increased R^2 indicated that the variables then explained 20.4 percent of the variance.

Table 13

The Effects of Verbal Ability and the Independent Variables Upon
Orientation Towards Achievement

Independent Variables	B	Beta	Std.Error B
Ethnicity	-.242	-.058	.695
Year in School	.142	.132	.147
Father's Occupation	1.503	.425	.578
Sex	.870	.261	.468
Self-Concepts of Academic Ability	-.328	-.116	.408
Verbal Ability	-.029	-.106	.039
$R^2 = .204$			

The variable "Verbal Ability" had a Beta coefficient of $-.106$ which indicated that the higher the verbal ability of the student, the less likely the student was to have a modern orientation towards achievement. The moderately strong effect suggested that Hypothesis 11, which stated that children with a high verbal ability have a more modern value system than children with a low verbal ability, is contradicted for the value orientation. The finding suggested that students who were able to use the English language better than others were more likely to achieve. Because achieving was easier for them they may not have been as likely to value achievement as was a student with lower verbal ability who probably worked harder in school.

The addition of "Verbal Ability" increased the strong effect parameters of "Father's Occupation" and "Sex". The exclusion of "Verbal

Ability" as an intervening variable also increased the effect parameter of "Year in School" by 2 percent. "Verbal Ability" had very little effect upon "Self-Concept of Academic Ability". "Verbal Ability" did, however, have a reducing effect of about 2 percent on "Ethnicity" but the overall Beta coefficient for "Ethnicity" was still weak.

Orientation Towards the Future

In this subsection, the multiple regression analysis findings for the dependent variable "Orientation Towards the Future" are presented and discussed. In Table 14 are presented the effects of the independent variables "Ethnicity", "Year in School", "Father's Occupation", "Sex", and "Self-Concept of Academic Ability" upon "Orientation Towards the Future".

Table 14

The Effects of the Independent Variables Upon Orientation Towards the Future

Independent Variables	B	Beta	Std. Error B
Ethnicity	.293	.090	.560
Year in School	-.177	-.213	.118
Father's Occupation	-.012	-.004	.469
Sex	-.275	-.107	.381
Self-Concept of Academic Ability	-.073	-.033	.332
$R^2 = .072$			

In the discussion of the Pearson correlation coefficients was noted the negative correlation between "Year in School" and "Orientation Towards the Future". The path coefficient at $-.213$ indicated that "Year in School" had a moderate, negative effect upon the students' orientation towards the future. The finding supported Hypothesis 7 which stated that children who have spent more years in school do not have more modern values than children who have spent fewer years in school. Once again it appeared that the steps taken by the Government of the N.W.T. to supplement the acculturative effects of schooling have indeed been successful. Experience in school did not appear to be contributing to more modern value systems on the part of the students in the population for this value orientation.

The path coefficients for the variable "Sex" indicated that, for this value orientation, Hypothesis 9, which stated that girls have a more modern value system than boys, was contradicted. The Beta effect was moderate at $-.107$ but it suggested that with regard to their orientation towards the future boys had a more modern value system than girls. This indicated that even though girls felt it was more likely that they would achieve their desired occupation than did males (Silverman and Silverman, 1973) girls in the N.W.T. in communities with parent selected mates and few career options may not wish to consider the future optimistically. Boys, however, have many options and have a brighter future in Inuit society as shown by a literal translation of the word Inuit which can mean "the man pre-eminently". Thus, boys would appear more future oriented than girls.

The path coefficients for "Ethnicity", "Father's Occupation" and "Self-Concept of Academic Ability" were all weak at .090, -.004 and -.033 respectively. This suggested that Hypotheses 6, 8 and 10 must be rejected for the variable "Orientation Towards the Future".

The R^2 for the variables was .072 and thus the model explained very little of the variance concerning "Orientation Towards the Future".

However, when "Verbal Ability" was included as an intervening variable the R^2 (see Table 15) indicated that the new model explained 10 percent of the variance concerning "Orientation Towards the Future". "Verbal Ability" had a standardized regression coefficient effect parameter of -.176, which suggested that for this value orientation, Hypothesis 11, which stated that children with a high verbal ability have a more modern value system than children with a low verbal ability, was contradicted. In fact, children with a low verbal ability had a more modern value system than children with a high verbal ability.

Table 15

The Effects of Verbal Ability and the Independent Variables Upon Orientation Towards the Future

Independent Variables	B	Beta	Std.Error B
Ethnicity	.401	.123	.565
Year in School	-.150	-.180	.120
Father's Occupation	.044	.016	.470
Sex	-.246	-.100	.381
Self-Concept of Academic Ability	-.053	-.024	.331
Verbal Ability	-.038	-.176	.032

$R^2 = .100$

Hypothesis 11 was rejected for all four value orientations, indicating very strongly that children in the Central Arctic with high English language verbal ability were rejecting the modern values of the western world. It may also have indicated an awareness on the part of students, with higher verbal ability, of the more overt attempts by the Government of the N.W.T. to supplement the acculturative effects of schooling. Children with high verbal ability may have also been likely to be more aware of groups like the L.E.A. and I.T.C. which advocate Inuit cultural preservation. Their awareness of and exposure to the desire to preserve the Inuit culture may have caused these children to find the traditional values to be more desirable than the modernistic values of the industrialized south. The efforts of the Government of the N.W.T. to supplement the acculturative effects of schooling appear to be having some success and may, in fact, have caused students with high verbal ability, regardless of sex, ethnicity, year in school, father's occupation and self-concept of academic ability, to acquire, the more traditional values.

The inclusion of "Verbal Ability" decreased the Beta effect of "Year in School" by 3.3 percent, which indicated that "Verbal Ability, when included in the model, had a suppressor effect upon "Year in School". The path coefficients for "Father's Occupation", "Sex" and "Self-Concept of Academic Ability" were also reduced. However, the path coefficient for "Ethnicity" was increased by 3.3 percent which caused "Ethnicity to have a moderate, positive effect at .123 upon the variable "Orientation Towards the Future". The finding indicated that the exclusion of "Verbal

Ability" from the model was having a suppressor effect upon "Ethnicity". When "Verbal Ability" was included in the model as an intervening variable, there was support for Hypothesis 6 which stated that white children have more modern values than Inuit children for "Orientation Towards The Future".

Orientation Towards Integration With Relatives

In this subsection, the multiple regression analysis findings for the dependent variable "Orientation Towards Integration With Relatives" are presented and discussed. In Table 16 are presented the effects of the independent variables "Ethnicity", "Year in School", "Father's Occupation", "Sex", and "Self-Concept of Academic Ability", upon the dependent variable "Orientation Towards Integration With Relatives".

Table 16

The Effects of the Independent Variables Upon the Orientation Towards Integration With Relatives

Independent Variables	B	Beta	Std.Error B
Ethnicity	1.221	.403	.470
Year in School	.137	.177	.099
Father's Occupation	.369	.145	.394
Sex	.053	.022	.320
Self-Concept of Academic Ability	-.423	-.207	.280

$R^2 = .248$

The discussion of the Pearson correlation coefficients noted that there was a positive correlation between "Ethnicity" and the students' orientation towards integration with relatives. As was noted earlier in this chapter, the Pearson correlation coefficient is not a predictive statistic. The standardized regression coefficient effect parameter is a predictive statistic and the effect parameter of .403 indicated that "Ethnicity" had a very strong effect upon "Orientation Towards Integration With Relatives". That finding supported Hypothesis 6 which stated that white children have more modern values than Inuit children. The Beta effect suggested that Inuit children are more highly integrated with their relatives than are white children. The finding was not surprising when we consider that most Inuit still retain the extended family system with uncles, aunts, cousins and grandparents all playing an important part in the day to day life of the children.

The independent variables "Self-Concept of Academic Ability", "Year in School", and "Father's Occupation" had moderate standardized regression coefficient effect parameters of $-.207$, $.177$ and $.145$ respectively. The "Self-Concept of Academic Ability" path coefficient of $-.207$ contradicted Hypothesis 10 which stated that children with a high self-concept of academic ability have a more modern value system than children with a low self-concept of academic ability. That finding may be a reflection of the very often overt favoritism which is shown on the part of Inuit parents to certain of their children. That is, the more favored children may likely have a higher self-concept and may likely tend to express a higher degree of integration with relatives who, because of expressed parental

favor, tend to treat the students in a positive manner. On the other hand, less favored children may very well have a lower self-concept and consequently may tend to express a lower degree of integration with relatives who, because of expressed parental disfavor, tend to treat these children in a negative manner. The reaction of the parents, especially the mother, toward early experiences is an important factor in the child's growing awareness of self (Brazelton, 1974). Inuit parents very often decide at a very early stage in a child's development whether they like the child or not. A child who is disliked is overtly rejected by the parents and is subject to negative treatment. The child is very often told whether he/she is liked by the parents. Wylie (1961) noted that the self-concept is also closely associated with value orientations. In fact, the self and values are likely to have the same origins (Hoffman, 1963). This connection may have caused a phenomenon to occur in the Central Arctic whereby, for this value orientation, children with a low self-concept of academic ability have a more modern value system than children with a high self-concept of academic ability.

The "Year in School" path coefficient at .177 contradicted Hypothesis 7 which stated that children who have spent more years in school do not have more modern values than children who have spent fewer years in school. For this value orientation it appeared that the degree of modernization increased with time spent in school indicating that the school may in fact have acted as an acculturative agent. However, this may have been a reflection of peer group influence with integration with relatives being superseded by integration with peers as the student progressed through school. It is possible that once the student finished or dropped

out of school and began spending more time with family and relatives that integration with relatives may once again have reasserted itself. This process, known as "cultural involution", was defined by Ritzenthaler (1972) as:

...the partial or total rejection of the older generational culture by a member of the younger generation, but his adoption of it again as a member of the middle generation.

The "Father's Occupation" path coefficient of .145 indicated that, for this value orientation, Hypothesis 8, which stated that children whose fathers have a high status occupation have more modern values than children whose fathers have a low status occupation, is supported. The finding was in keeping with Kahl's (1968:16) observation that "there is a clear line of influence from father to son in the acquisition of career values". Kahl (1968:15) in reference to the values of a modern man noted that:

...One of the modern men lives in a small town in the interior, and thus cannot be said to have first learned his values from the bustling metropolitan environment of Rio De Janeiro; in fact, he learned them from a father of lower-middle-class background, and had them reinforced in the secondary school where he mixed with the tiny elite of the town.

The Beta effect of .022 for the independent variable "Sex" indicated that, for this value orientation, Hypothesis 9, which stated that girls will have a more modern value system than boys, must be rejected. The path coefficient at .022 was far less than .100 and thus too weak upon which to base any valid conclusions.

The R^2 for Table 16 showed that the variables explained approximately 25 percent of the variance concerning the students orientation towards integration with relatives.

However, when "Verbal Ability" was included as an intervening variable (see Table 17), the R^2 indicated that the new variables explained approximately 27 percent of the variance concerning "Orientation Towards Integration With Relatives". "Verbal Ability" had a standardized regression coefficient effect parameter of .152 which suggested that, for this value orientation, Hypothesis 11, which stated that children with a high verbal ability have a more modern value system than children with a low verbal ability, is supported.

Table 17

The Effects of Verbal Ability and the Independent Variables Upon Orientation Towards Integration With Relatives

Independent Variables	B	Beta	Std. Error B
Ethnicity	1.134	.374	.475
Year in School	.115	.149	.100
Father's Occupation	.324	.127	.395
Sex	.029	.012	.320
Self-Concept of Academic Ability	-.439	-.215	.279
Verbal Ability	.030	.152	.027

$R^2 = .268$

The inclusion of "Verbal Ability" as an intervening variable decreased the effect parameters of all five independent variables but the reduction in strength of the effect parameters was not sufficient to warrant any substantial change in status of the findings previous to the inclusion of "Verbal Ability" in the model.

Summary

In this chapter, the effects of the independent variables "Ethnicity", "Year in School", "Father's Occupation", "Sex", and "Self-Concept of Academic Ability" on the dependent variables "Verbal Ability", "Orientation Towards Accomplishment", "Orientation Towards Achievement", "Orientation Towards the Future" and "Orientation Towards Integration With Relatives" were estimated.

First, in order to estimate the parameters of the models, Pearson correlation coefficients among all the variables were determined and discussed. It was noted that multicollinearity was present in this data but that it was not severe enough to warrant the exclusion of any of the variables. A brief examination of the Pearson correlation coefficients revealed that the highest correlation was between "Ethnicity" and "Father's Occupation", which indicated that white fathers may have had higher status occupations than Inuit fathers. The lowest correlation was between "Sex" and "Verbal Ability" which indicated that the sex of the students may have had no discernible effect upon their verbal ability. Because the Pearson correlation coefficient is not a predictive statistic, regression analysis was included in order to determine the effects of the independent upon the intervening and dependent variables. However, in this subsection it was noted that the value orientations were in some cases negatively intercorrelated, which may have indicated that in the Central Arctic the value orientations are separate rather than dimensions of the same value.

In the subsection on "Verbal Ability" the findings indicated that

white children have a higher verbal ability than Inuit children. Children who had spent more time in school than other children had a higher verbal ability than children who had spent less time in school than other children and children whose fathers had a high status occupation had a higher verbal ability than children whose fathers had a low status occupation. The findings did not support the notion that girls have a higher verbal ability than boys, nor did they support the notion that children who have the highest self-concept of academic ability have the highest verbal ability.

In the subsection on "Orientation Towards Accomplishment" the findings indicated that Inuit children had a more modern orientation towards accomplishment than white children. As expected, it was found that children with a high self-concept of academic ability had a more modern orientation towards accomplishment than children with a low self-concept of academic ability. Surprisingly, children whose fathers had a high status occupation did not have more modern values than children whose fathers had a low status occupation. In fact, the reverse was found to be the case. As well, in this subsection, the findings indicated that the number of years in school and the sex of the student had no effect upon the student's orientation towards accomplishment. The inclusion of "Verbal Ability" as an intervening variable increased the R^2 from .148 to .199. With the inclusion of "Verbal Ability" in the model, it was found that children with high verbal ability had a less modern value system than did children with a low verbal ability.

In the subsection on "Orientation Towards Achievement" the findings indicated that children whose fathers have a high status occupation had a more modern orientation towards achievement than children whose fathers had a low status occupation and that girls had a more modern orientation towards achievement than boys. It was also found that children who had spent more years in school did have a more modern orientation towards achievement than children who had spent fewer years in school. As well, the findings indicated that children with a low self-concept of academic ability had a more modern orientation towards achievement than children with a high self-concept of academic ability. The notion that white children had a more modern orientation towards achievement than Inuit children was not supported. The inclusion of "Verbal Ability" as an intervening variable increased the R^2 from .194 to .204. With the inclusion of "Verbal Ability" in the model, it was found that children with a low verbal ability had a more modern orientation towards achievement than did children with a high verbal ability.

In the subsection on "Orientation Towards the Future", the findings indicated that children who have spent more years in school do not have a more modern orientation towards the future than did children who had spent fewer years in school. It was also found that boys had a more modern orientation than did girls. There was no support for the notion that white children have a more modern orientation towards the future than did Inuit children. There was no support either for the notion that children whose fathers had a high status occupation have a more modern orientation than did children whose fathers had a low status occupation.

Neither was there any support for the notion that children with a high self-concept of academic ability had a more modern orientation towards the future than did children who had a low self-concept of academic ability. With the inclusion of "Verbal Ability" in the model, the R^2 was increased from .072 to .100. With the inclusion of "Verbal Ability" in the model, the findings indicated that children with a low verbal ability had a more modern orientation towards the future than did children with a high verbal ability. With the inclusion of "Verbal Ability" it was found that there now was support for the notion that white children had a more modern orientation towards the future than did Inuit children.

In the subsection on "Orientation Towards Integration with Relatives" the findings indicated that white children had a more modern orientation towards integration with relatives than did Inuit children. It was also found that children with a low self-concept of academic ability had a more modern orientation than did children with a high self-concept of academic ability and children who had spent fewer years in school had a more modern orientation than children who had spent more years in school. As well, the findings indicated that children whose fathers have a high status occupation had a more modern orientation than did children whose fathers had a low status occupation. The inclusion of "Verbal Ability" as an intervening variable increased the R^2 from .248 to .268. With the inclusion of "Verbal Ability" in the model, it was found that children with high verbal ability had a more modern orientation towards integration with relatives than did children with a low verbal ability.

Chapter V

Summary and Conclusion

This chapter will present a summary of the study and will focus on the problem, the hypotheses, the sample and variables, and the findings. It will also present a conclusion indicating implications for theory and education and making suggestions for further studies.

Summary

The Government of the Northwest Territories has become concerned about the acculturative effects of schooling. The Government has taken steps to modify the acculturative effects of schooling. Some of those measures are first, the inclusion of a clause in the Education Ordinance which enables Local Education Authorities to select the native language as the language of instruction for the first three years in school; second, the inclusion of curriculum materials which reflect the languages and experiences of the North; third, the creation of the Teacher Education Program to train native teachers; fourth, the hiring of native classroom assistants in all communities with an indigenous native population; fifth, the provision of financial support for Local Education Authorities in order to offer cultural inclusion programs; sixth, the drafting of an education ordinance which was consistent with the philosophies of the indigenous peoples of the N.W.T., and seventh, the exclusion of grades and formal testing and the creation of a more egalitarian grouping of students in classrooms. With this in mind, the study sought to determine if the school was playing an acculturative role

or if the government's action had helped to modify acculturation in the schools. This study was significant in that it was an exploratory, empirical look at the school's acculturative role in the Canadian Central Arctic where attempts have been made to deal with the problem of acculturation.

The hypotheses tested in this study were as follows:

- Hypothesis 1: White children have a higher verbal ability than Inuit children.
- Hypothesis 2: Children who have spent more time in school than other children will have a higher verbal ability than children who have spent less time in school than other children.
- Hypothesis 3: Children whose fathers have a high status occupation have a higher verbal ability than children whose fathers have a low status occupation.
- Hypothesis 4: Girls have a higher verbal ability than boys.
- Hypothesis 5: Children who have the highest self-concept of academic ability have the highest verbal ability.
- Hypothesis 6: White children have more modern values than Inuit children.
- Hypothesis 7: Children who have spent more years in school do not have more modern values than children who have spent fewer years in school.
- Hypothesis 8: Children whose fathers have a high status occupation have more modern values than children whose fathers have a low status occupation.

Hypothesis 9: Girls have a more modern value system than boys.

Hypothesis 10: Children with a high self-concept of academic ability have a more modern value system than children with a low self-concept of academic ability.

Hypothesis 11: Children with high verbal ability have a more modern value system than children with a low verbal ability.

Chapter III presented a description of the sample, a description of the variables included in the study and a statement of the procedures used. The sample consisted of 49 students from the Ilihakvik School in Cambridge Bay and 8 students from the Kugasidyig School in Pelly Bay. There were 30 males and 25 females identified. 35 Inuit students were identified as having fathers in the low occupational status category and 9 Inuit students were identified as having fathers in the high status occupation category. Of the white students, 2 were identified as having fathers in the low status occupation category and 9 were identified as having parents in the high occupational status category. The Inuit students comprised 80 percent of the sample and the white students comprised 20 percent of the sample. The students ranged in age from 10 years 4 months to 17 years of age. The students had spent from 3 years to 11 years in school with 85.4 percent of the sample having been in school from 6 years to 9 years.

Five independent variables were identified. The first independent variable identified was the ethnicity of the student, with students who responded as being English or French being classified as White and with students who responded as being Inuit, Indian or English-Inuit being

classified as Inuit. The second independent variable identified was the student's year in school. The third independent variable identified was the student's father's occupation which was divided into a high status category and a low status category. The fourth independent variable identified was the sex of the student. The fifth independent variable identified was the self-concept of academic ability of the student. The "Self-Concept of Academic Ability" variable was a construct of five statements whose item total correlations indicated that the items were measuring the same general construct.

"Verbal Ability" was identified as an intervening variable and was determined by the number of correct responses on a modification of the I.E.A. Word Knowledge Test.

Four independent value orientations were identified. The first dependent variable identified was "Orientation Towards Accomplishment". The "Orientation Towards Accomplishment" dependent variable was a construct of two statements whose item total correlations suggested that the two items were measuring the same general construct. The second dependent variable identified was "Orientation Towards Achievement". The "Orientation Towards Achievement" dependent variable was a construct of four statements whose item total correlations suggested that the items were measuring the same general construct. The third dependent variable identified was "Orientation Towards the Future". The "Orientation Towards the Future" dependent variable was a construct of two statements whose item total correlations suggested that the two items were measuring the same general construct. The fourth dependent variable identified

was "Orientation Towards Integration with Relatives". This orientation was a construct of two statements whose item total correlations suggested that the two items were measuring the same general construct.

In order to estimate the parameters of the models, Pearson correlation coefficients among all variables included in the study were determined. Path analysis was the procedure used to decompose and interpret the linear relationships among the variables.

In chapter IV, the effects of the independent variables "Ethnicity", "Year in School", "Father's Occupation", "Sex" and "Self-Concept of Academic Ability" were estimated. Furthermore, the effects of the independent variables upon the dependent variables "Orientation Towards Accomplishment", "Orientation Towards Achievement", "Orientation Towards Integration with Relatives", and "Orientation Towards the Future" were estimated with "Verbal Ability" acting as an intervening variable.

In the section on "Verbal Ability" the findings were that Hypothesis 1 was supported, Hypothesis 2 was supported, Hypothesis 3 was supported and Hypotheses 4 and 5 were rejected. In the section on "Orientation Towards Accomplishment" the findings indicated that Hypotheses 6 and 8 were contradicted, Hypothesis 10 was supported and Hypotheses 7 and 9 were rejected. With the inclusion of "Verbal Ability" in the model, Hypothesis 11 was contradicted. In the section on "Orientation Towards Achievement" the findings indicated that Hypotheses 8 and 9 were supported, Hypotheses 7 and 10 were contradicted and Hypothesis 6 was rejected. With the inclusion of "Verbal Ability" in the model, Hypothesis 11 was contradicted. With the inclusion of "Verbal Ability" in the model,

Hypothesis 11 was supported. In the section on "Orientation Towards Integration with Relatives" the findings were that Hypotheses 6 and 8 were supported, Hypotheses 7 and 10 were contradicted and Hypothesis 9 was rejected. With the inclusion of "Verbal Ability" in the model, Hypothesis 11 was contradicted and Hypothesis 6 was supported rather than rejected. In the section on "Orientation Towards the Future" the findings were that Hypothesis 7 was supported, Hypothesis 9 was contradicted and Hypotheses 6, 8 and 10 were rejected.

The Pearson correlation coefficients showed that the dependent value orientations were in some cases negatively intercorrelated, which may indicate that in the Central Arctic the value orientations are each unique phenomena and not simply dimensions of the same value.

Conclusion

The positive and low negative intercorrelations among the value orientations constituting the dependent variable lend themselves to various interpretations. It may be, as has been previously suggested, that the value orientations identified by Kahl as contributing to an overall value of achievement orientation do not, in fact, apply in the Central Arctic. The components identified by Kahl may be separate entities which do not lend themselves to a composite value. This interpretation may be supported by a consideration of the Beta effects of the independent variables, "Ethnicity" had a negative standardized regression coefficient effect parameter for the "Orientation Towards Accomplishment", an insignificant effect upon "Orientation Towards Achievement" and "Orientation Towards the Future" and a positive standardized re-

gression coefficient effect parameter for the "Orientation Towards Integration with Relatives". One path coefficient was positive, one was negative and two were insignificant. If all four value orientations were dimensions of the same general value than it should be presumed that the independent variable "Ethnicity" would have the same general effect upon them all. Since "Ethnicity" did not have the same effect and since some findings were contradictory it might be suggested that in the Central Arctic the value orientation variables are in fact separate entities.

The same case can be presented for the other four independent variables, "Year in School", "Father's Occupation", "Sex" and "Self-Concept of Academic Ability", and for the intervening variable, "Verbal Ability", as was presented for "Ethnicity". For the independent variable "Year in School", one path coefficient was positive, two were negative and one was insignificant. For the independent variable "Father's Occupation", one path coefficient was negative, two were positive and one was insignificant. In the independent variable "Sex" one path coefficient was positive, one was negative and two were insignificant. For the independent variable "Self-Concept of Academic Ability" two path coefficients were negative, one was positive and one was insignificant. For the intervening variable "Verbal Ability", three path coefficients were negative and one was positive. In all cases, the findings were contradictory which may indicate that, in fact, the value orientations are separate entities rather than composite dimensions of the value 'achievement orientation'. As Kahl (1965) points out:

...Achievement orientation on the level of values is not a single dimension. We must deal with its components, and then tie them to the relevant psychological dimensions. Studies that depend on any one of these variables without reference to the others do not control enough variance in predicting behavior to contribute much to a theory of succession and mobility in the stratification system, to say nothing of a theory of entrepreneurship and economic progress, that will be both elegant and practical.

Certainly the interpretation that the value orientations are in fact separate entities in the Central Arctic, and the remarks of Kahl are propositions that require further research.

Other interpretations of the conflicting findings regarding the value orientations lend themselves to more theoretical explanations. For instance, it was pointed out that for the "Orientation Towards Accomplishment" Inuit children appeared more modern than did White children yet on the "Orientation Towards Integration with Relatives" White students appeared more modern than Inuit students. A possible interpretation of this finding rests in the "levels of acculturation" concept which spoke to the differential rates of acculturation. Not all segments of a tribal society learn and utilize concepts from another culture at the same rate and to the same degree (McFee, 1975). Thus Inuit students, while still seeing the value of integration with relatives, may still feel it necessary to utilize the concept of accomplishment from the White culture. This is implicit in the findings of Barnett (1973) who stated:

...Evidence suggests that the majority of young people may be somewhat dissatisfied with the local village and their present status in it. They may enjoy traditional ways, but once these ways are closed to a practical livelihood, the Eskimo may be prepared to turn to the larger urban centre.

To remain stranded in a small settlement in the midst of both worlds appears to be a less satisfactory alternative.

Regarding the orientations toward achievement and towards the future, the findings indicated that neither Inuit nor white students appeared more modern. This may reflect the nature of acculturation as "essentially a one-way process with those being acculturated always losing something of their own culture as they accept something perceived as desirable (ed., med. care) from the dominant culture" (Magner, 1974). For those two orientations it appears that White students have lost some of their modernity and Inuit students have lost some of their traditionalism as they move toward some middle ground. The notion that White students are in fact losing some of their modernity is supported by the indication that Inuit students appeared more modern on the orientation towards accomplishment variable. The notion of "cultural involution" as defined in Chapter IV may be applicable here as well. It may be that the apparent rejection of old ways by both Inuit and White children as youths may be reversed when they become adults. The applicability to the Central Arctic of such notions as "levels of acculturation", acculturation as a "one-way" process, and "cultural involution" requires further research. These notions may require further research in other areas of Canada, as well, where two or more cultures come into continuous first-hand contact.

The "Year in School" independent variable also lends itself to another interpretation of the conflicting findings regarding the value orientations. Shaw and Wright (1967) noted that "Attitudes are learned through interaction with social objects and in social events or situations". The school is naturally such a social event or situation.

Stein (1974) pointed out that "the emphasis throughout the school experience is the belief that fulfillment of the American dream is possible through education and hard work". Stein further stated that "schools serve to confirm the white ethnic stereotype". On two of the dependent value orientations, "Orientation Towards Achievement" and "Orientation Towards Integration with Relatives", the findings suggested that the longer a student is in school, the more modern will be his values. This was contrary to the notion that the schools in the N.W.T. were successfully supplementing the acculturative effects of schooling but is consistent with Stein's confirmation of the "white ethnic stereotype" theory. However, the notion that schools in the N.W.T. were effectively supplementing the acculturative effects of schooling was supported by the findings of the orientation towards the future variable where in fact students who had spent more years in school did not appear more modern. This coupled with the notion of white students becoming less modern may indicate that first, the schools are in fact still an agent of acculturation and second, both White and Inuit students are being acculturated. The notion that both White and Inuit students are being acculturated may explain why there are conflicting findings. In this respect, Linton (1963) has pointed out, "the attitudes of the receiving group toward the donor group will attach themselves, at least initially to the elements of culture which contact between the two groups makes available for borrowing". The attempt at supplementing the acculturative effects of schooling may be repressing certain elements of the White culture and not affecting others which may still be making themselves available for borrowing.

The inference is that the longer a student is in school in the Central Arctic the more likely the student is to reflect a modern orientation towards achievement and a modern orientation towards integration with relatives. This inference needs further research for the implications are important. One important implication rests in the popular belief that the Inuit are losing their culture. A culture can be thought of as "a social system that possesses identifiable and interdependent structures on institutions and is associated with a common set of shared beliefs, attitudes and values among its members" (Feather, 1975:195). If the school is passing on a set of values to the Inuit students which is different from that of their parents then it can be said that their culture is being affected. However, this study does not present any empirical evidence regarding the beliefs of Inuit parents. They may in fact be identical to those of their children. Another important notion is the idea expressed by Ritzenthaler (1972) that assimilation may only be a temporary feature of school life. It is possible that learning during the critical period may reassert itself later in life. That is, school children may appear to be assimilated on certain value orientations but preschool learning or enculturation may have a stronger effect than the school's assimilative influence. The idea that enculturation, or the process of learning one's own cultural tradition, may reassert itself in the post-school experiences of Inuit children is also one that needs further study.

Many researchers have spoken to what they feel is the deliberate attempt on the part of the schools to assimilate minority ethnic groups.

Carlson (1975:4) spoke to the deliberate attempt on the part of American educators to Americanize all people. Carlson referred to this as a deliberate attempt to 'uphold freedom' by indoctrinating norms of belief in religion, politics, and economics. Hostetler and Redekop (1962) refer to the 'imperialistic' nature of the educational institutions of the 'great society' and noted that "a group will resist dissolution to the degree that it can 'control' the educational offensive of the 'great society' and exploit it to its own advantage". Epstein (1971) assumed that the school plays a major role in internal colonialism noting that, "within some independent nations, certain groups of people have experienced domination by others, a condition that is often referred to as "internal colonialism". With the use of terms like indoctrination, imperialistic, educational offensive of the 'great society' and internal colonialism, the term assimilation takes on a negative connotation.

However, Herskovits (1958:13) refers to assimilation as:

...the name given to the process or processes by which peoples of diverse racial origins and different cultural heritages, occupying a common territory achieve a cultural solidarity sufficient at least to achieve a national unity.

Park (1950:209) noted that assimilation:

...brings with it a certain borrowed significance which it carried over from physiology where it is employed to describe the process of nutrition, somewhat similar to the physiological one, we may conceive alien peoples to be incorporated with and made a part of, the community or state. Ordinarily assimilation goes on silently and unconsciously, and only forces itself into popular conscience when there is some interruption or disturbance of the process.

Herskovits and Park do not imbue assimilation with the negative connotations with which others have viewed the process. Rather it is seen as a

natural on-going process which occurs when peoples of diverse origins occupy the same territory. In the N.W.T., there has been some interruption of the process and acculturation has emerged as an issue. The Government of the N.W.T. has recognized the problem and has taken steps to curb what could be interpreted in a negative manner. The Government has stated that acculturation is taking place but the Government must also realize that some assimilation, a phase of acculturation, must take place in order to achieve national unity. Thus the government has sought to modify the effects of acculturation rather than attempt to eliminate it altogether. Park (1930) stated that:

...Diffusion can be thought of as that aspect of cultural change which includes the transmission of techniques, attitudes, concepts and points of view from one people to another; whether it be through the medium of a single individual or of a group, or whether the contact is brief or sustained.

Diffusion, a phase of acculturation, may still be taking place in schools in the N.W.T. This is indicated by the finding that the longer a student is in school, the more modern he/she is likely to appear in terms of the student's orientation towards achievement and in terms of the student's orientation towards integration with relatives. This suggests that these modern attitudes are passed on to students regardless of their ethnicity and that it is likely they are passed on in school. However, the finding that students do not have a more modern orientation towards the future as a result of schooling when ethnicity is controlled for, probably means that diffusion is also occurring from the Inuit to the White culture which may mean that the Government is having some success in supplementing the acculturative effects of schooling.

In a recent book, Brain (1972) wondered:

...Whether it is in fact feasible to help isolated, exotic cultures to survive in the modern world, even to the extent of protecting them in their "uncivilized" modes of life or whether all the minority peoples of this planet must now radically change their way of life, or die.

The Government of the N.W.T. is faced with a minority people in the Central Arctic. In its approach to the problem, similar to that Brain has described, the Government of the N.W.T. is attempting through education to place the Inuit in a position where he has mastered two cultures - the dominant Canadian culture and the minority native Inuit culture.

The cultural agents who most directly affect students in the classroom is the teacher. Kleinfeld (1975) stated that "the ethnocentric teacher has been tried and convicted". Kleinfeld further noted that:

...A dramatic change, however, has occurred in educational programs for minority groups. The pejorative appellation 'culturally deprived' has given way to the term 'culturally different'.

The role of the teacher in the Central Arctic today fits a definition of roles of teachers of Indian students in America by Miller (1968) who stated that:

...In the final analysis the teacher's role is to make it possible for each Indian child to identify and clarify values of both cultures and forge them into a philosophy that will guide and give stability to his actions. In the process, a successful teacher develops in the child pride in his heritage and helps him preserve and use Indian cultural values as the foundation upon which to base his personal value system. When he completes his formal education, he may decide to remain in his Indian community or he may decide his future lies far from the ancestral home.

However, if teachers are to accept this role they must realize that it is not an easy one to maintain. As Kleinfeld (1975) points out:

...the cultural relativist's emphasis on differences between Indians and Whites often creates unease among Indian students and reinforces their fears of being peculiar and strange...The cultural relativist will often draw silent and unresponsive behavior as well as the ethnocentrist.

Acculturation in the North has been taking place for a long time.

Oswalt (1963) in a study of a Moravian mission in Alaska noted that "a boarding and day school, opened in 1886, was probably the first effective instrument of change utilized by the Moravians". Today, community schools are gradually becoming more and more locally controlled. The turning over to Local Education Authorities of more and more control of education is probably an extremely positive move for as Hawthorn (1944) pointed out in a study of the Maori:

...The community-adopted school generally operates so as to render the solution of the problems of acculturation smoother than if it had not been there.

Forbes (1969:46) viewed the school as a bridge between students and an adult world "Anglo in character, but more often it will be of a mixed culture." Forbes noted that:

...The school, if it is to be a bridge must serve as a transitional experience and not as a sudden leap into a foreign set of values and practises.

Forbes, on the basis of his own understanding of social science theory as applicable to education, chose the middle ground of suggesting

...a multi-cultural or cross-cultural strategy designed to create a school relevant to the needs, and responsive to the wishes of a given community.

It is to this end that the Department of Education in the N.W.T. appears to have directed itself, and it is to this end it might continue to

direct itself along such lines if it wishes. The child is the most important element in the school and as Taba (1962:145) noted:

...A child in a given subculture has not only learned certain values and behavior but has also invested them with positive feelings. To destroy these and to ask him to acquire a new set of values represents a threat of ego-destruction and of destruction of his sense of belonging to his own culture. By being asked to take on new values, he is in effect asked to reject himself and his parents.

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APPENDIX A

Student Questionnaire

Part One

On the following pages you will find a number of statements.

These statements are designed to determine your attitudes on various subjects such as school, jobs, and your future plans. There are no right or wrong answers.

Under each statement you will find five brackets. If you agree strongly with the statement, you must place an (X) in the first

1

bracket. If you agree but not very strongly, you must place an (X) in

2

in the second bracket. If you are unsure about how you feel, you must

place an (X) in the third bracket. If you disagree, but not very

3

strongly, you must place an (X) in bracket four. If you strongly

4

disagree with the statement, you must place an (X) in bracket five.

5

Please try to respond to the unsure brackets as few times as possible.

The following are two examples which will demonstrate the correct manner in which to respond to the statements.

I plan to leave school before graduating.

Completely

Agree

Agree

Unsure

Disagree

Completely

Disagree

()

()

()

(X)

()

1

2

3

4

5

It is good to spend money as soon as you get it.

Completely

Agree

Agree

Unsure

Disagree

Completely

Disagree

(X)

()

()

()

()

1

2

3

4

5

Section A

This section of the questionnaire is designed to test your attitude towards an occupation.

The most important qualities of a real man are determination and driving ambition.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

The most important purpose of the school is to prepare people for a job.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

The best way to judge a man is by his success in his job.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

The most important thing for a parent to do is to help his children get a better job than the parent did.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

The job should come first, even if it means giving up time from play.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Canadians put too much stress on occupational success.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Section B

This section of the paper is designed to test your attitude toward achievement, and the family.

Nothing in life is worth the sacrifice of moving away from your parents.

Completely				Completely
Agree	Agree	Unsure	Disagree	Disagree
()	()	()	()	()
1	2	3	4	5

Planning only makes a person unhappy, since your plans hardly ever work out anyway.

Completely				Completely
Agree	Agree	Unsure	Disagree	Disagree
()	()	()	()	()
1	2	3	4	5

When the time comes for a boy to take a job, he should stay near his parents, even if it means giving up a good job opportunity.

Completely				Completely
Agree	Agree	Unsure	Disagree	Disagree
()	()	()	()	()
1	2	3	4	5

The wise man lives for today and lets tomorrow take care of itself.

Completely				Completely
Agree	Agree	Unsure	Disagree	Disagree
()	()	()	()	()
1	2	3	4	5

The best kind of job to have is one where everyone works together, even if you don't get credit for your own work.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

When a man is born, his life is already planned, so he might as well accept it and not fight against it.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

All I want out of life in the way of a job is a secure, not too difficult job, with enough pay to afford a nice ski-doo, boat and kicker.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Even when teenagers get married, their main loyalty still belongs to their fathers and mothers.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Section C

This section of the questionnaire is designed to test your attitude towards your own life and your trust in others.

Most people are fair and do not try to get away with something.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

People help persons who have helped them, not so much because it is right, but because it is good business.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

You can only trust people whom you know well.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Children should be taught that in these days a person really doesn't know whom he can count on.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Children should learn that most people can be trusted.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

It is not good to let your relatives know everything about your life, for they might take advantage of you.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Most people will repay your kindness with ingratitude.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

It is not good to let your friends know everything about your life, for they might take advantage of you.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Section D

This section of the questionnaire is designed to test your attitude towards the future.

Making plans only brings unhappiness because the plans are hard to fulfill.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

It is important to make plans for one's life and not just accept what comes along.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

The secret of happiness is not expecting too much out of life, and being content with what comes your way.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

With things as they are today, an intelligent person ought to think only about the present, without worrying about what is going to happen tomorrow.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

It doesn't make much difference whom people elect to government for nothing will change.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Section E

This section of the questionnaire is designed to test your attitude towards accomplishment.

A child should be taught from infancy to take the greatest pride in doing things well.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Children ought to learn to try hard to come out on top in games and sports.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

A mother ought to teach her child to try to do everything he does better than anyone else.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Section F

This section of the questionnaire is designed to test your attitude toward relatives.

When you are in trouble, only a relative can be depended upon to help you out.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

If you have the chance to hire an assistant in your work, it is always better to hire a relative than to hire a stranger.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Section G

This section of the questionnaire is designed to test your self-concept.

I feel that I am as able as my best friends to get good marks in school.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

I feel that I am able to go on to university.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

I feel that I am able as my classmates to get good marks in school.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

The Eskimo is as able as the white man to get a government job.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

I feel that I am able to complete high school.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

I can get better grades in school if I work harder.

Completely					Completely
Agree	Agree	Unsure	Disagree	Disagree	
()	()	()	()	()	
1	2	3	4	5	

Part Two

This section of the questionnaire is designed to measure parental encouragement.

Do you usually have a fixed time for doing your homework?

- ☐ Yes
- ☐ No
- ☐ I never have homework

Does your mother or father insist that you do your homework?

- ☐ Yes, all of the time.
- ☐ Yes, most of the time.
- ☐ About half of the time.
- ☐ Less than half of the time.
- ☐ Never
- ☐ I never have homework.

Does your mother or father help you with your homework?

- ☐ Often (at least once a week)
- ☐ Occasionally (at most once or twice a month)
- ☐ Never
- ☐ I never have homework.

When you show your parents anything you have done at school, do they:

- ☐ Always show an interest in it?
- ☐ Almost always show an interest in it?
- ☐ Occasionally show an interest?
- ☐ Never show an interest in what you have done?
- ☐ I never bring anything home.

In your spare time at home, do your parents:

- ☐ Encourage you to read as much as possible?
- ☐ Sometimes suggest that you read?
- ☐ Not mind if you never read?

When you get home from school, do your parents:

- () Always want to know how you have done?
- () Almost always want to know how you have done?
- () Occasionally want to know how you have done?
- () Never want to know how you have done?

Part Three

Word Knowledge Test

In this test words are given you in groups of four. In each group, two words have something in common. You must decide whether the words mean nearly the same thing, or nearly the opposite thing, with respect to what they have in common.

Next to each group of four words you will find a statement telling you to underline the two words which you think mean nearly the same thing or which you think mean nearly the opposite thing.

Please make sure you check to see whether the words should mean the same or nearly the opposite thing.

Underline the two words 1. quick precise slow fight
which you think mean
nearly the opposite
thing.

Underline the two words 2. open vague charming shut
which you think mean
nearly the opposite
thing.

Underline the two words 3. ordered confused intolerant result
which you think mean
nearly the opposite
thing.

Underline the two words 4. wild sorrow joy discord
which you think mean
nearly the opposite
thing.

Underline the two words 5. originate modesty scarce create
which you think mean
nearly the same thing.

Underline the two words 6. uneasy punish ordered reward
which you think mean
nearly the opposite
thing.

Underline the two words 7. tame relative modesty wild
which you think mean
nearly the opposite
thing.

Underline the two words 8. scorn robust bold brave
which you think mean
nearly the same thing.

Underline the two words 9. amiable false charming puny
which you think mean
nearly the same thing.

Underline the two words 10. left harmony discord associate
which you think mean
nearly the opposite
thing.

Underline the two words 11. benevolent intolerant boastfulness minor
which you think mean
nearly the opposite
thing.

Underline the two words 12. forbidden rapid ignorant wise
which you think mean
nearly the opposite
thing.

Underline the two words 13. create uneasy slow comfortable
which you think mean
nearly the opposite
thing.

Underline the two words 14. vague precise shut dare
which you think mean
nearly the opposite
thing.

Underline the two words 15. hinder reward cleanse help
which you think mean
nearly the opposite
thing.

Underline the two words 16. grieve partner punish rejoice
which you think mean
nearly the opposite
thing.

Underline the two words 17. retain confused genuine false
which you think mean
nearly the opposite
thing.

Underline the two words 18. absolute acquire dispel harmony
which you think mean
nearly the opposite
thing.

Underline the two words 19. complete whole extent joy

which you think mean

nearly the same thing.

Underline the two words 20. permanent fight amiable struggle

which you think mean

nearly the same thing.

Underline the two words 21. informed major open unaware

which you think mean

nearly the opposite
thing.

Underline the two words 22. puny effect ignorant robust

which you think mean

nearly the opposite
thing.

Underline the two words 23. rare despise scorn bold

which you think mean

nearly the same thing.

Underline the two words 24. benevolent modesty confident suspicious

which you think mean

nearly the opposite
thing.

Underline the two words 25. major minor purify wise

which you think mean

nearly the opposite
thing.

Underline the two words 26. expel hinder retain brave

which you think mean

nearly the opposite
thing.

Underline the two words 27. length share divide grieve

which you think mean

nearly the opposite
thing.

Underline the two words 28. rapid sluggish abandoned originate
which you think mean
nearly the opposite
thing.

Underline the two words 29. despise comfortable partner associate
which you think mean
nearly the same thing.

Underline the two words 30. cleanse dispel purify ordered
which you think mean
nearly the same thing.

Underline the two words 31. informed abandoned quick left
which you think mean
nearly the same thing.

Underline the two words 32. complete dare genuine attempt
which you think mean
nearly the same thing.

Underline the two words 33. everlasting permanent confident rejoice
which you think mean
nearly the same thing.

Underline the two words 34. precise divide acquire exact
which you think mean
nearly the same thing.

Underline the two words 35. sluggish prohibited forbidden struggle
which you think mean
nearly the same thing.

Underline the two words 36. share unaware boastfulness modesty
which you think mean
nearly the opposite
thing.

Underline the two words 37. extent attempt length suspicious
which you think mean
nearly the same thing.

Underline the two words 38. absolute exact relative expel
which you think mean
nearly the opposite
thing.

Underline the two words 39. prohibited result everlasting effect
which you think mean
nearly the same thing.

Underline the two words 40. scarce whole rare help
which you think mean
nearly the same thing.

Part Four

This last part of the questionnaire will deal with some background information pertaining to you. Would you please be as accurate as possible in answering all questions.

Name _____

Sex male
 female

Age _____ years and _____ months

How many years have you been going to school? _____

Have you ever been to Southern Canada?

() Yes

() No

If yes; how many weeks did you spend there?

() just one week

() two-three weeks

() four-eight weeks

() more than eight weeks

How many times have you been south?

() just one time.

() two-three times

() four-eight times

() more than eight times

Have you ever been to any other community in the Northwest Territories?

() Yes

() No

Where did you go? _____

How long did you spend in each community?

Was your visits to Southern Canada spent in a hospital?

() Yes

() No

What is your father's occupation?

(If your father has more than one occupation, please include them all).

What is your mother's occupation?

(If your mother has more than one occupation, please include them all).

How often do you go to church?

1 () every day

2 () every week

3 () two or three times a month

4 () once a month

5 () 6 times a year

6 () once a year

7 () not at all

8 () no reply

Where were you born?

Are you () Inuit

() Indian

() English

() Other

(please specify)

