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**BICULTURALISM AND BARRIERS TO LEARNING AMONG MICHIGAN INDIAN
ADULT STUDENTS**

Michigan State University

Ph.D. 1983

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BICULTURALISM AND BARRIERS TO LEARNING AMONG
MICHIGAN INDIAN ADULT STUDENTS

By

Samuel Francis Akao

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
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Department of Administration and Curriculum

1983

ABSTRACT

BICULTURALISM AND BARRIERS TO LEARNING AMONG MICHIGAN INDIAN ADULT STUDENTS

By

Samuel Francis Akao

The primary purpose of this study was to determine the relationship between biculturalism and barriers to learning among Indian adult students in Grand Rapids, Michigan.

One group of Indian adult students and one group of Anglo adult students comprised the final sample of 84 in this study. Self-administered questionnaires were collected over a period of 10 weeks. Twenty-four percent of the sample was contacted for a follow-up interview.

Descriptive and inferential statistical analyses were conducted with the .05 level of probability set as the level of statistical significance.

The biculturalism scores indicated that Indian adult students were moderately bicultural or able to balance both the Indian and Anglo cultures. Biculturalism scores of Indian adult students were negatively related to situational barriers. The data indicated that the development of biculturalism may be a direct key to improving learning among Indian adults.

A profile analysis on learning barriers indicated that situational, dispositional, and institutional barriers were of equal importance for both Indian and Anglo adult students.

Significant differences were noted between Indians and Anglos on situational, institutional, and learning barriers as a whole. Indian adult students assigned more importance to situational, institutional, and to learning barriers overall than did their Anglo counterparts. No significant difference was noted between Indian and Anglo adult students on dispositional barriers.

Comparisons of specific barriers within each category indicated that factors of distance, lack of time to study, and lack of transportation were of equal importance and of more importance than lack of child care for Indian adult students. In comparison, all four situational barriers were of equal importance for Anglo adult students. Both groups also indicated that, among the dispositional barriers, lack of confidence in their ability to learn was of greatest importance. Data revealed that the 12 institutional barriers designated in this study were of equal importance for both Indian and Anglo adult students.

Finally, relationships between biculturalism, barriers to learning, and demographic characteristics were examined.

Recommendations for program improvement in adult education and future research with Native Americans were discussed.

For Mom and Dad

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Special thanks are expressed to Dr. Michael Connolly, former Director of the Indian Adult Learning Center, and to the Board of Directors of the Grand Rapids Inter-Tribal Council for their support and permission to conduct the research project at the Center. Thanks are extended to the staff of the Center for their help in collecting the research data, especially to the adult students who generously gave of their time to fill out the questionnaire.

My deepest appreciation goes to my parents and friends for their love and support throughout my graduate study.

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CHAPTER I

INTRODUCTION

There are 1,420,400 Native Americans in the U.S. (U.S. Bureau of the Census, 1982a). It has been estimated that the high school dropout rate for American Indian 14 to 17 year olds is 22% (National Center for Education Statistics, 1981). This high national dropout rate of Native Americans poses an important problem for the educational system. In Michigan, specifically, the problem is severe. According to a study of the socioeconomic status of Michigan Indians, about 75% of the household heads surveyed failed to graduate from high school (Governor's Commission on Indian Affairs, 1971). Most of these dropouts had less than a ninth-grade education.

Grand Rapids Inter-Tribal Council (GRITC) reports indicate that many Native American participants in the Council's programs did not complete high school. Many did not go beyond seventh grade. Reading and math were areas of difficulty, and vocational training was limited (GRITC, 1978).

The irrelevance of curricula, discrimination in the school systems, cultural value conflicts, and language barriers are frequent reasons given to explain the high dropout rate (Berry, 1968; MacLean, 1973; Wax, 1967). This research investigated various dimensions of the Michigan Indian within the school system. Of primary interest

are the extent to which students can function in both the white and native cultures and the major problems that they perceive in the educational system.

The Problem

Biculturalism is the belief that a person can develop an identification with more than one culture and, in the process, acquire a wide range of adaptive competencies and sensitivities (Ramirez, Castaneda, & Cox, 1977; Ramirez, Garza, & Cox, 1980). This ability to draw from and balance two cultures may be a significant asset for the Native American to succeed in the Michigan school system. An investigation of biculturalism is important in understanding how American Indian adult students function in the larger society.

Although numerous articles have described the level of assimilation, acculturation, or amalgamation of various tribes (Vogt, 1957; Walker, 1972), there are few studies concerning biculturalism of Indian people residing in the United States. Therefore, the first objective of this study was to determine the extent to which Michigan Indians are bicultural.

The extent to which minority individuals experience barriers in the educational system may affect the extent to which they adaptively function in both cultures and vice versa. It is important, therefore, to assess the barriers to learning among Indian adult students.

The literature on barriers to learning suggests that a variety of obstacles prevent or discourage adults from participating in

organized learning activities (Cross, 1979). These barriers include lack of time, transportation problems, high cost of education, lack of interest, lack of confidence in one's ability, inconvenient schedules and locations, and lack of interesting courses. Studies about Native Americans also indicate that most of the previously mentioned barriers affect Indian students (Fuchs & Havighurst, 1972; Meriam, Brown, Cloud, Dale, Duke, Edwards, McKenzie, Mark, Ryan, & Spillman, 1928; U.S. Senate, 1969). It is conceivable, therefore, that these barriers may also pose problems for both Indian and Anglo adult learners currently enrolled in adult education programs.

This study was designed to determine the major learning barriers experienced by Indian adult students of the Grand Rapids Indian Adult Learning Center. It attempts to explain why these factors are experienced as barriers to learning and indicate what the students feel should be done to alleviate them. This study, based on student input, may help to promote positive change and enhance learning.

The biculturalism variable in this study explores the role of cultural balance in the learning situation. The relationship between biculturalism and learning barriers may be a key to understanding the learning difficulties faced by Native American adult students. With this information, educators could maintain or promote the optimal level of biculturalism in order to maximize learning effectiveness.

This study may also be more widely useful to Native American adult education. First, the instructional information may be used in planning adult education or other programs for other adult Native

Americans from the target population. Second, the results will provide administrators, adult educators, and program developers with a source of information to plan adult education programs for Native Americans in other learning institutions throughout the Grand Rapids area. Finally, the findings will be most helpful to adult educators or those in helping professions who plan and teach nonacademic programs where instruction for Native American adults is required.

Objectives

The specific objectives of this study were:

1. To determine the degree of biculturalism among Michigan Indian adult students.
2. To indicate the degree of importance of barriers to learning for both Indian and Anglo adult students.
3. To examine differences in barriers to learning between Indian and Anglo adult students.
4. To examine the relationship between respondents' ethnicity and degree of importance of barriers to learning.
5. To determine the degree of importance of factors within each category of learning barriers.
6. To determine why reported factors are barriers to learning and solicit students' ideas for appropriate change.
7. To examine the relationships between biculturalism and barriers to learning.

Definitions of Terms

Indian Adult Students. Those adult students of one-quarter or more Native American ancestry (Connolly, 1980) who are over 16 years of age as of fall semester, 1980.

Anglo Adult Students. Those adult students of Caucasian ancestry who are over 16 years of age as of fall semester, 1980 (Connolly, 1980).

Biculturalism. A person's ability to participate in and identify with more than one culture (Ramirez et al., 1980).

Barriers to Learning. There are three categories of learning barriers: situational, dispositional, and institutional (Cross, 1979). Situational barriers are those originating from one's life situation at some point in time, such as a lack of transportation, lack of time due to home or job responsibilities, geographical isolation, and lack of child care. Dispositional barriers refer to one's attitudes about learning and self-perceptions as a learner; for example, boredom with school or lack of interest in learning, lack of confidence in one's ability, or belief that one is "too old" to learn. Institutional barriers are those created by learning institutions or agencies that may pose problems of access for certain groups of learners. These include such things as inconvenient schedules, high cost of education, and inconvenient locations.

Limitations of the Study

This study was limited to Indian and Anglo adult students over 16 years of age who voluntarily enrolled at the Indian Adult Learning Center prior to the end of the fourth week of September 1980.

The study's validity depends on the extent to which adult students were able to provide unbiased and honest responses. Therefore, participants were encouraged to be frank.

The scope of this study was limited to the Grand Rapids area in the State of Michigan. Generalization was limited accordingly.

Overview of the Study

Chapter II reviews and summarizes the literature relevant to this study. Chapter III describes the research methodology, while Chapter IV presents the analyses of the data. Chapter V summarizes the study's findings and discusses implications for program-improvement areas and for future research.

CHAPTER II

REVIEW OF THE LITERATURE

Biculturalism: A Theoretical Perspective

The effects of acculturation and adaptation among ethnic minority groups have been characterized in several ways: conflict, marginality, pathology; functionalism; transcension; biculturalism; or multiculturalism (Ramirez et al., 1980).

Personality development of minority-group members has been conceptualized according to a model of personality conflict and cultural replacement (Ramirez et al., 1980). Assuming there were two incompatible sociocultural systems, it would be reasonable to conclude that individuals participating as members of the two systems would experience conflict and eventually the values, belief systems, and coping behaviors of one culture would be replaced with those of another. This conflict model also implies that as individuals move toward one of the cultures, they identify more with it and move away from the other culture, thus replacing the values and lifestyles of one with those of the other.

Stonequist (1937) proposed one early conceptualization based on the conflict/replacement model wherein members of minority groups were referred to as "marginal." Stonequist's focal thesis is reflected in the following statement: "The marginal man as conceived in this study is one who is poised in psychological uncertainty between

two (or more) social worlds, reflecting in his soul the discords and harmonies, repulsions and attractions of those worlds."

Stonequist mentions three significant stages in the "life cycle" of the marginal man: (a) positive feelings toward the host culture, (b) conscious experience of conflict, and (c) responses to the conflict, which may be prolonged and more or less successful in terms of adjustment. Furthermore, an individual can adopt one of three roles during the third stage: (a) nationalism, (b) intermediation, and (c) assimilation. Nationalism refers to the organization of a collective movement to raise the status of the group. Intermediation refers to bringing the two cultures closer to promote accommodation. Assimilation refers to a largely unconscious process in which social backgrounds eventually fade away. Overall, Stonequist's model deals with cultural conflict, suggesting that the only "healthy" resolution to this conflict is assimilation into the dominant culture.

Another conceptual framework based on the conflict model was posited by psychologist Irving Child (1943), who observed intercultural conflicts in young adult male Italian Americans in New Haven. Based upon these conflicts, Child suggested three types of conflict reactions: (a) the rebel reaction, (b) the in-group reaction, and (c) the apathetic reaction. The rebel reaction refers to behaviors indicating a desire to achieve complete acceptance by the American majority group and to reject Italian associations. The in-group reaction refers to behaviors indicating a desire to actively participate in and identify with the Italian group. Finally, the apathetic reaction refers to a retreat from conflict situations and

avoidance of strong "rebel" and "in-group" behaviors. In addition, Child considered that an individual's attempt to solve the conflict by adjusting to two cultures and compromising was also an "apathetic reaction."

Another subscriber to the conflict/replacement model was Madsen (1964), who wrote "The Alcoholic Agringado" article describing cultural transfer traumas in acculturating Mexican American males of south Texas. Madsen depicts the Mexican American, caught between two conflicting cultural worlds, turning to alcohol for anxiety relief.

A second characterization of the effects of living or operating in two cultures, or more, is that of Functionalism (Ramirez et al., 1980). This characterization describes a person who understands networks and social groups within a second culture and can appropriately and adaptively interact in various situations with these groups without sacrificing the values of either group.

For example, Fitzgerald (1971) described extensive "shuttling" by Maori university graduates as they moved between the European and Maori cultures. Fitzgerald commented on the concepts of social and cultural identity. He described the behavior of his subjects as compartmentalized, being appropriate to either the Maori or European cultures, depending on settling, interaction, and expectations. The Maori subjects managed to function well in European events and activities, while retaining their Maori identity. Based on his study, Fitzgerald concluded that acculturation is not a linear process,

but a complex set of experiences and behaviors in which individual choice is a critical determinant.

In another study, McFee (1968) concluded that among Blackfeet Indians living on a bicultural reservation, Indian behaviors that had continuing utility were not replaced by a white behavioral repertoire. McFee noted that the bicultural reservation provides a variety of situations and roles that promote the use of both Indian and White behaviors. To assess levels of involvement in the two sociocultures, McFee devised measures of Indian orientation and a measure of White orientations. He used a two-dimensional matrix of biculturalism to analyze the data. The vertical axis represented Indian orientation measured by knowledge of Blackfeet language, religious beliefs and lore, and participation in ceremonies, dances, and songs. The horizontal axis represented White orientation measured by behaviors indicative of American mainstream culture.

Valentine (1971) also drew conclusions concerning behavioral flexibility in his discussions of biculturation among black Americans. He wrote:

The collective behavior and social life of the Black community is bicultural in the sense that each Afro-American ethnic segment draws upon both a distinctive repertoire of standardized Afro-American group behavior and, simultaneously, patterns derived from the mainstream cultural system of Euro-American derivation. (p. 143)

A third characterization of an acculturation effect is that of Transcension (Ramirez et al., 1980). Transcension is a process by which individuals are able to willingly acquire a second culture, integrating it so adaptively into their identity that the boundary

of one culture or another is no longer distinct, but instead diffused; the individuals respond adaptively, depending upon the time or situation or circumstance. This one aspect of biculturation effects is illustrated by Adler (1977), who described the identity of the multicultural man. The multicultural man, according to Adler, is always in transition. Adler contends that values, beliefs, attitudes, and world views are relevant only to certain situations. These components are dynamic, continually evolving and being reformulated through experience. The multicultural person is one who can transcend national and cultural boundaries and identities. Adler notes that this person is psychologically adaptive, understanding interculturality, and has a global view of community.

The two characterizations, functionalism and transcendence, taken together in various forms, lead to a discussion of biculturalism or multiculturalism. Ramirez and Castaneda (1974), for example, indicated that bicultural children responding to social and cultural stimuli of specific situations were usually bilingual and spoke English or Spanish spontaneously. These children showed positive attitudes toward both Anglo and Chicano cultures. It was also found that bicultural children had more flexibility in responding to certain situations or tasks. The behavior and attitudes of these children were viewed by Ramirez and Castaneda as part of the process of developing a bicultural identity, which, when taken together, describe a bicultural personality.

Recently, Ramirez et al. (1980) discussed a model of flexibility, synthesis or unity, and expansion to describe aspects of

developing biculturalism or multiculturalism. The description included the following:

(1) individuals learn from the diversity reflected by cultures, situations, environments, other individuals; (2) an individual's behavioral repertoires and perspectives are enhanced by incorporation of knowledge and experiences of people of various experiences and backgrounds; (3) these expanded repertoires provide a basis for a multicultural orientation to life--willingness and ability to adapt situationally; (4) the individual continues to develop abilities and perspectives in his or her original culture; (5) growth takes place in various domains of different cultures simultaneously; (6) a resulting orientation that includes an experience of oneself as having incorporated value systems, attitudes, beliefs and world view from various groups and experiences as well as a commitment to openness and further growth. The flexibility of behavior is a first step in the development; synthesis or unity or fusion of culture and personality, of social and philosophical motivations is another; and commitment to further expansion of one's world and personal growth is another.

The last element, commitment to personal growth and multicultural expansion, is one which distinguishes a person's functioning in multicultural behaviors and those who are functional and have a transcendent or multicultural identity as well. (pp. 6-7)

Based on this conceptualization of multiculturalism, Ramirez et al. (1980) examined leader behaviors of Mexican American college students in ethnically mixed task group situations. The findings indicated five dimensions of group leader behaviors, which subjects with greater degrees of multicultural experience used more frequently than subjects with less multicultural experience. These dimensions and behaviors, according to Ramirez et al., include the following: (a) taking charge (exhibiting assertive behaviors; assessing group progress), (b) effective communication (eliciting opinions; clarifying statements made by members; clarifying problem being discussed), (c) attempting to reduce interpersonal conflict (mediating; seeking

compromise solutions), (d) social sensitivity and personableness (acknowledging contributions of members; addressing members by name), and (e) coping with stress (fewer indications of tension or stress).

Significant differences were also noted for subjects with high versus low cognitive flexibility in the category of communication effectiveness (eliciting opinions, clarifying statements) and coping with stress.

Research has indicated, then, that biculturalism can be experienced as stressful and debilitating or positive and growth producing.

Barriers to Learning

As noted in the previous chapter, there are three types of barriers to learning: situational, dispositional, and institutional (Cross, 1979). Situational barriers include environmental problems related to community services and personal situations. Dispositional barriers refer to one's attitudes about learning and self-perceptions as a learner. Institutional barriers are those created by learning institutions or agencies that may pose problems for certain groups of learners.

Self-report surveys on educational needs and interests of adults indicate that situational barriers are the obstacles that deter the largest number of learners (Cross, 1979). For many groups, the major barriers identified by survey respondents are lack of time and high cost. Cross noted that about one-third of the respondents viewed cost as the major obstacle to further learning; time was reportedly as strong a factor. These two factors varied in severity

but were generally the two most frequently reported barriers to learning. Other situational barriers are lack of child care, usually a problem for between 10 and 20% of potential learners (Hamilton, 1976; Hefferlin, Peterson, & Roelfs, 1975; New York State, 1977; Nurnberger, 1974; Stelzer & Banthin, 1975), and transportation problems, which are especially likely to plague the elderly (Cross, 1979). The desire-for-social-acceptability factor is one possible explanation why time and money are most often cited as leading barriers instead of more personally demeaning barriers, such as lack of confidence, lack of ability, or lack of interest (Cross, 1979). There is probably an underestimation of these dispositional barriers reported in surveys because people do not like to reveal them. For example, people may not want to admit that they lack confidence or the ability to do well in school. Cross noted that dispositional barriers were usually mentioned by less than 10% of the respondents.

The most frequent reports of dispositional barriers, however, are found among those who are not participating in educational activities. In one study of postsecondary education, Nurnberger (1974) found that the only significant discriminators between users and nonusers of educational services were the self-perceptions of the respondents as learners. Nonusers were significantly more likely to cite problems with the enjoyment of studying, feelings of confidence, and knowing what they would like to learn and where to get information about their interests.

While each survey seems to have its own list of possible institutional barriers, there are some common barriers that potential

learners complain about most. They are inconvenient locations and schedules and the lack of interesting or relevant courses. Generally, each of these barriers was cited as somewhat of a problem by up to one-fourth of the potential learners (Carp, Peterson, & Roelfs, 1974; Hamilton, 1976; Hefferlin et al., 1975; New York State, 1977; Wilcox, Stratford, & Veres, 1975). Relatively few respondents cited lack of information as a barrier, although there was ample evidence that adults did lack information about the new opportunities available (Carp et al., 1974). One wonders if many of the perceived problems with schedules, locations, and courses might have been due to a lack of information about the options that existed.

Institutional barriers exist primarily in colleges and universities: that segment of adult education that was originally devised for full-time learners. These barriers are rapidly being removed by colleges seeking to serve adults. The surveys of higher education sponsored by the Commission on Non-Traditional Study (Ruyle & Geiselman, 1974) showed that college programs have become more accessible to working adult students through such changes as scheduling classes when and where working adults can attend, granting credit by examination for noncollegiate learning, and creating more flexible admissions procedures. Nevertheless, there are still substantial numbers of potential adult learners who cite institutional barriers to their continued education. Public policy decisions may encourage further removal of institutional barriers, but the major challenge for policy makers lies in better understanding of dispositional barriers. Unfortunately, there is still insufficient information

about the effective removal of these serious barriers to promote the attainment of equal opportunity (Cross, 1979).

Educational Problems Among Indian Children and Adults

Several studies have shown that a high rate of Indian students leave school prematurely. A number of factors have been cited as causes of this high dropout rate. For example, Fuchs and Havighurst (1972) indicated that a high school education is considered to be important among Indian parents, but family lifestyles may inhibit school attendance and achievement.

Kinship and family obligations frequently require the child to stay home and look after the house or younger siblings while both parents are away. Poverty also contributes to a lack of money for lunch or, especially for the older children attending high school, the lack of money to purchase appropriate clothing. Frequent moves among the more transient groups, accompanied by school transfers, also contribute to difficulties in school. (pp. 115-116)

Recently, the first national study of adult Indian educational needs was conducted (Brod & McQuiston, 1981). The preliminary results indicated that situational barriers were among the major obstacles to continued learning. When State Education Agency (SEA) officials were asked to speculate on the major problems that Indian adult students might encounter in current state adult education programs, they cited problems with transportation (28%), children/child care (23%), transience (15%), and language barriers (5%).

The academic achievement of the Indian is also reflected in the numbers who continue their education. Again, situational barriers were noted as major factors in the postsecondary careers of

Indian students. In 1968, Bass (1969a) studied 384 American Indian graduates in the Southwest six years after high school completion. He found that 74% of the graduates had entered academic or vocational programs. Of these, 7% completed college while 44% completed technical-vocational training. Two-thirds of the females and three-quarters of the males were employed. Females were usually employed in clerical services, and they reported satisfaction with their jobs. Males were employed in skilled and unskilled jobs, and they reported dissatisfaction. Overall, inadequate finances, military service, marriage, and pregnancy were cited as the main reasons for failing to complete postsecondary education.

Selinger (1968) interviewed 287 American Indian high school graduates in the Northwest. Of these, he found that about 70% continued their education and about 50% completed it. (Note: Figures do not represent a high number of those continuing when the dropout rate before graduation is counted.) Slightly less than one-half of the females and slightly more than one-half of the males were employed, with the majority in low-skill, low-paying jobs. Females discontinued their education more because of lack of interest than because of marriage; males because of lack of financial support and lack of interest.

The literature on school achievement of Indian students also indicated that said students lacked certain traits, skills, dispositions, or attitudes that are required for success in a mainstream educational system.

Berry (1968) reviewed a number of self-concept studies and reported that students' perceptions of themselves and their abilities are a major factor in school achievement. The literature suggested that a negative self-image is a cause of the Indian student's academic failure. Conversely, a student who has a positive self-image and high self-esteem is likely to do well in school (Fuchs & Havighurst, 1972).

In one study, Heaps and Morrill (1979) compared the self-concepts of Navajo to those of white high school students. The data illustrated that, in general, Navajo students felt less positive about their identity, their moral-ethical self, and their social self than their white counterparts. The authors suggested that the differences may be due largely to unique cultural differences in moral values and social comparison between the two groups. Martin (1978) found in his examination of self-esteem that at the junior high and high school levels, Indian students exhibited lower self-esteem scores than white students. Fuchs and Havighurst (1972) reported, however, that the self-concept of Indian adolescents is at least as favorable as that of Anglo boys and girls. Socioeconomic factors as well as ethnic differences were noted as possible explanations for their finding.

Related to self-concept is the aspect of self-confidence. In citing the National Study on the perceptions of teachers toward Indian children and youth, Fuchs and Havighurst reported that when teachers were asked to respond to the statement, "In class, Indian children are shy and lack confidence" (p. 194), 50% of the teachers agreed

with this statement. Studying the academic achievement of Indian high school students in federal and public schools, Bass (1969b) asked students to mark as true or false the following statements: "I am confident of my ability in school" and "I like school" (p. 25). Most of the respondents felt these statements were true. The percentages of responses were 71% and 83%, respectively. While the evidence is not consistent, it does appear that many Indian students have a low level of self-confidence and that more research is needed in this area.

Low achievement of Indian children has also been attributed to dispositional factors such as lack of motivation, shyness, and mental deficiency (Berry, 1968). The latter factor, however, has been discredited by Berry and later by Fuchs and Havighurst (1972).

Thus far the barriers cited for academic difficulties and failure to complete high school or to continue education are those that fall outside the educational institution. It has been reported that institutional barriers also contribute to educational problems among Indian students. The problems of Indian education were documented in the literature as early as 1928 in perhaps the most important research project ever conducted in regard to Indian affairs. The study, known as the Meriam Report, found that the educational system had not been responsive to the special needs of Indian students up to that date. The findings of this early study included an attack upon the operation of boarding schools, which were seen to be overcrowded, rigid in their schedule of work and study, and deficient in health and educational services. Teachers were considered

poorly trained, and salaries were considered too low to attract better personnel (Meriam et al., 1928).

The U.S. Senate Subcommittee on Indian Education (1969) supported the findings of the Meriam Report and indicated that the schooling of Native Americans had not improved much during the intervening 40 years. Quality and effectiveness of instructional practices were found to be quite unsatisfactory, levels of achievement of Indian students continued well below national norms on achievement tests, and the vast majority of public schools rarely included courses in Indian history, culture, and language in the curriculum. Most textbooks used in schools depicted and perpetuated inaccurate stereotypes about American Indians. Many teachers and administrators believed that Indian students were inferior to white students, and thus they were expected to fail.

Fuchs and Havighurst (1972) indicated that schools continued to discourage and alienate large numbers of Indian students. Institutional barriers such as insensitive, non-Indian teachers, lack of relevance in curriculum experiences, and absence of strong communication links with Indian parents and communities were found.

The perceived problems of Indian adults as reported by SEA officials, according to Brod and McQuiston (1981), included many of the same discontinuities found in the education of younger Native American students, as noted earlier. They cited inadequate recruitment channels with Indian communities (44%), a lack of an identifiable community from which to recruit Indian participants (36%), and a lack of a trained staff to deal with special problems of Indian

adults (33%). Fifteen percent of the SEA officials identified no major problems, while others saw problems with prejudice (13%) and program design (10%).

The problems in learning activities among Indian students may be explained further by the middle-class values under which most schools operate. Zintz (1967) cited a number of instances in which cultural values led to conflict.

1. Harmony with nature as juxtaposed with mastery over nature;
2. Present time orientation rather than future time orientation;
3. Inclusion of mythology, fear of the supernatural, and sorcery rather than a total commitment to a scientific explanation of all natural phenomena;
4. A level of aspiration to follow in the ways of the old people; to cooperate and maintain the status quo rather than to develop a keen sense of competition and climb the ladder of success;
5. To value anonymity and submissiveness rather than individuality and aggression;
6. To work to satisfy present needs and to be willing to share rather than always working to "get ahead" and save for the future. (p. 91)

Also, there is a difference in styles of learning between the Indian student and the Anglo-oriented school. McKinley, Bayne, & Nimnicht (1970) pointed out:

Our own field data indicate that Indian children prefer the style of learning characteristic of their culture. Generally, the learner initiates an extended period of observation and attempts performance only when he feels fairly certain of his ability. Premature bungling attempts are met with teasing, and successful attempts with quiet acceptance. The characteristics of learning in the American classroom (i.e. initiation by the teacher, premature public practice, public praise and public correction) are all antithetical to this aboriginal style. . . . Modern American Indian children prefer self-directed and self-initiated projects, ungraded curricula, and learning activities which can be completed with minimal interaction between student and teacher, except when the interaction involves friendly help on an individual basis. (pp. 14-15)

It appears that value conflicts experienced as a result of curricula do contribute to institutional barriers. Until recently, many schools failed to recognize these differences and adjust teaching and curriculum to them. However, until this is done many Indian students may continue to refuse to participate and drop out.

Problems of Indian Students in Michigan Public Schools

The Michigan Department of Education (1974) reported on two issues of priority in Indian education: (a) lack of educational achievement as evidenced by high dropout rates from secondary schools and comparatively low proportions of the Indian population who are high school graduates and (b) comparatively low proportions of the Indian population who attend, and complete, postsecondary education.

On the issue of high school completion, two kinds of difficulties were reported: (a) institutional factors and (b) factors related to home environment.

Institutional factors were defined in terms of an awareness of and sensitivity to needs of Indian people. Of particular importance were attitudes of teachers and other school administrators, the lack of Indian counseling services and home-school liaisons, and the biased and stereotypic impressions of Indian people presented in history courses and in some textbooks.

Home-environment factors related to the students, their families, and their peers. Part of this problem was reported as lack of motivation to attend school. It was suggested that parents should create this motivation at home. Other factors of the home environment were

more tangible. Home environment and personal circumstances, for instance, were cited as factors in determining one's accessibility to transportation; the clothes, shoes, and eyeglasses needed; means to secure books and school supplies; and the parental support needed to get along in school.

The second basic problem, namely the comparatively low proportion of the Indian population that attends and completes postsecondary education, consisted of two aspects: (a) limited financial resources on the part of Indians to secure a college education and (b) the alienation experienced by Indian people attending postsecondary institutions (Michigan Department of Education, 1974).

An Evaluation of the Indian Adult Learning
Center in Grand Rapids, Michigan

Until 1977, the Grand Rapids Inter-Tribal Council offered adult education through the Grand Rapids Public Schools. Although the educational needs of the Indian population were great, participation by Indian adult students was poor. The program was limited in scope and failed to meet the pressing needs of the Indian community. The failure of the program was due to such problems as lack of full-time staff to serve the students, inadequate facilities, lack of transportation and babysitting services, lack of coordination between area adult education and training programs, and lack of materials sensitive to the needs of Indian people.

These problems were greatly reduced through the creation of the Indian Adult Learning Center during the 1977-78 school year (GRITC, 1978). The center approach has created a conducive atmosphere to

encourage learning and promote academic success for its participants. According to an evaluation of the Indian Adult Learning Center for the 1978-79 school year, students indicated general satisfaction with the program (Office of Curriculum, 1979). The staff identified program weaknesses mainly in institutional components of funding, materials, and physical arrangement of the building. The dispositional factor of motivating students also posed a problem.

The follow-up survey of the Indian Adult Learning Center was undertaken in part to gather some perceptual data that might lead to the improvement of services provided through the center (Office of Curriculum, 1980). A total of 59 graduates were interviewed. Three key areas were identified from the survey data for improvement of the center. First, 40% of the graduates felt that more should be offered in vocational training. Second, 44% of the graduates expressed an interest in having more college-preparatory classes. Third, 64% of the graduates cited staff as one of the things they liked most about the center, while students loitering and distracting other students while studying was the most frequently cited response of things disliked about the center.

In summary, the literature has indicated that biculturalism and barriers to learning may play an important role in the educational performance and functioning of minority students. Biculturalism related to factors operating within the student. The barriers-to-learning component focused upon the role of the systemic variables in the education of the Indian adult student.

CHAPTER III

METHODOLOGY

This study was designed to assess biculturalism and barriers to learning among participants at the Indian Adult Learning Center in Grand Rapids. It was also designed to determine the relationships between biculturalism and barriers to learning within this population.

The Research Setting

An Indian Adult Learning Center in Grand Rapids, Michigan

Based upon data from Kent and Ottawa Counties, the Native American population in Grand Rapids today is estimated at 2,461 (U.S. Bureau of the Census, 1982b). Gorwitz and Rosen (1979) viewed the urban Indians in Michigan to be rather diverse in orientation (see Appendix A). The employment outlook of the Grand Rapids Indian community is dismal. Approximately 60% of the people are unemployed and about 225 people are receiving food stamps (Connolly, 1980). The latter figure is probably conservative since not all Native Americans identify themselves as Indian or are detectable by appearance, so they go undetected by the Department of Social Services. For many, there are no possibilities of new employment in skilled jobs or advancement in current jobs because of their lack of education (GRITC, 1978).

The Indian Adult Learning Center in Grand Rapids provides educational as well as employment opportunities for the Native American population (GRITC, 1978). The Center is housed in Lexington School, which is located near the Indian community. The Center offers an individualized instructional approach to students interested in acquiring a high school diploma or a high school equivalency certificate (General Educational Development [GED] test). The Center also offers classes in Typing, Bookkeeping, Office Procedures, Indian Culture and Crafts, Food and Nutrition, Career Education, Income Tax, and Self-Analysis. In addition, students are encouraged to enroll in vocational training programs to enhance their employability. The Center's staff is predominantly Native American, so language and cultural barriers are somewhat less than those in other public agencies. Many staff members are also from the area and are familiar with the lifestyles and opportunities the community provides. Students in the program are provided supportive services such as counseling, transportation, and child care. Classes are scheduled Monday through Friday. The Center's Adult Education program is open to all community members from age 16 or older, regardless of race, income, or residence.

Subjects

The population consisted of all Grand Rapids Indian and Anglo adult students who had enrolled for public school classes by the fourth Friday of September 1980. Approximately 200 adult students were enrolled by the date designated by the Board of Education as

the official registration deadline of the Grand Rapids Adult Education programs for the 1980 Fall semester. Adult students who had enrolled after the deadline were not included in the sample. Students were included only if they resided in the Grand Rapids area. A list of all registered Indian and Anglo adults and their addresses was compiled from the Grand Rapids Inter-Tribal Council high school and GED enrollment records.

Out of the 200 registered adult students, 90 names were randomly assigned to two groups. Forty-five Indian adult students were assigned to one group, and 45 Anglo adult students were assigned to the other group. The remaining 110 names of adult students were divided by the two ethnic groups and were randomly assigned to each of the first two groups, respectively, as replacements for participants lost in the study due to noncompliance, incorrect listings, or absenteeism. The final sample comprised 84 students: 45 Indian adult students and 39 Anglo adult students.

Procedure

The methods used in conducting the research are described below.

Administration of the Questionnaire

The questionnaire was administered individually to Anglo and Indian adult students in attendance at the Indian Adult Learning Center. The researcher and Center staff members serving as research assistants administered the questionnaires. The follow-up interview was conducted by the researcher. Since the students were already familiar with staff members, this procedure was used to facilitate

adequate and accurate responding and to reduce subject mortality among this highly mobile population. Total data collection entailed 10 weeks.

Students were contacted before and after classes had begun, as well as during independent study periods. Research assistants informed the subjects that they were assisting the researcher in gathering information on the major problems or barriers to learning among adult students. Subjects were informed that the research could be used by the Center in program planning. They were assured that their responses would be held confidential. A signature was obtained on a consent form from all participants by the research assistants. A copy of the form used in this study can be found in Appendix B. The questionnaire was then administered to the subjects, preceded by a cover letter (see Appendix C).

The questionnaire comprised three measures: the Biculturalism Inventory, the Marlowe-Crowne Social Desirability Scale, and the Barriers to Learning Scale. The Biculturalism Inventory was administered only to the Indian adult students in the sample. All other measures were given to all subjects. The entire questionnaire was self-administered. In addition to written directions for the scales on the questionnaire, research assistants orally reviewed the directions with students. They were also available to answer questions about the questionnaire items and to collect the questionnaires from students.

Of the 90 questionnaires distributed to students, 88 were returned. Of the 88 questionnaires, 4 answered by Black and Mexican

American students were eliminated, leaving a total of 84 usable questionnaires and a return rate of 93.3%.

The Barriers to Learning
Follow-Up Interview

Ten Indian and 10 Anglo adult students were randomly selected from the final sample and assigned to participate in the Barriers to Learning follow-up interview. Because it would not be feasible to interview all of the Indian and Anglo adult students, this smaller sample was chosen. Approximately 24% of the total sample were interviewed. All subjects who were asked to participate in the interview agreed to do so. Interviews were conducted individually. Subjects were told to refer to the Barriers to Learning Scale and were asked to choose the five most important barriers from among those on the scale, which they rated "not much of a problem" to "very important problem." They were instructed to mark their responses for the items they selected, beginning with 1 as the most important barrier or barrier to learning, 2 as the second most important barrier, 3 as the third most important barrier, and so on. Each student was asked to state why the particular barrier selected as most important was a problem and to suggest how the barrier might be changed to improve the learning situation. For example: "Why do you think tests are somewhat of a problem for you?" "How would you change tests to help you learn better?" The interviewer recorded the subject's responses on data-recording sheets (see Appendix D). With the consent of the subjects, the interviews were also tape recorded.

Although all of the 20 interviews were obtained on tape, there were a few cases in which the subjects were initially reluctant to have their responses tape recorded. In these cases, the interviewer explained that the tape recorder served as an aid in recording their responses fully and accurately and that the recorded information would be held in complete confidence. Only one subject chose to discontinue the interview. The subject did not give a reason for discontinuing the interview. Another subject was randomly selected as a replacement.

Training of Research Assistants

Staff members in the Indian Adult Learning Center were recruited to serve as research assistants. The researcher approached the Center's Director about selecting individuals for a research team. The Director asked a few staff members for their participation in the study. The research assistants included two teachers, one school counselor, and one community aide.

Individual training sessions were held at the Indian Adult Learning Center to familiarize the research assistants with the questionnaires, directions, and procedures for data collection. The researcher conducted the training sessions.

Lists of randomly assigned subjects and copies of class schedules were distributed to each research assistant. Research assistants were instructed to notify the researcher of subjects who could not participate so that replacements for subjects could be assigned. Schedules of days and hours when both researcher and research assistants were available to administer questionnaires were also exchanged.

The researcher supervised research activities through weekly on-site observations and discussions with research assistants. The researcher was also available for telephone consultation as needed.

Description of the Measures

Biculturalism Inventory. This questionnaire was developed by Ramirez et al. (1977) as a biculturalism inventory for Mexican American college students. The questionnaire was also refined and used by Ramirez, Garza, and Cox (1980) in their study on leadership behaviors in interracial small-group situations. The items contained in the questionnaire are based on findings of preliminary investigations and items from related instruments (Ramirez, 1967; Teske & Nelson, 1973). The questionnaire comprises three parts: demographic information, personal history, and bicultural participation. Items 31 to 70, questioning personal history and bicultural participation, included areas of socialization background, interpersonal interactions, culture, and language experiences. There is a total of 88 items on the original questionnaire. Split-half reliability was .7925, indicating rather high stability. The instrument has been adopted for use in this study as a measure of biculturalism.

The researcher felt that the use of the new scoring procedure described by Ramirez et al. (1980) would be most appropriate in determining the biculturalism score for the Indian adult students in this study. Type A items are presented in a Likert-type format ranging from "All Indians" to "All Anglos." The items are scored according to numerical weightings assigned to each response

alternative. One point is assigned to a response of "All Indians" or "All Anglos" (alternatives one and five, respectively), two points are assigned to responses of either "Mostly Indians" or "Mostly Anglos" (alternatives two and four), and three points are assigned to responses of "Indians and Anglos about equal." Hence, the higher the score, the greater the degree of biculturalism. Type A items include the following: Items 28, 29, 30, 31, 32, 34, 37, and 40.

Type B items are arranged in a five-point Likert-type scale ranging from "Very Often" to "Never." The eight Type B items are arranged into four pair combinations, each contrasting the individual's degree of participation in both Anglo and Indian cultures on a given domain. Three points are assigned to a pair combination of either "Very Often" or "Often." Two points are assigned to any pair combination of "Very Often," "Often," or "Occasionally." One point is assigned to pair responses of all other combinations. Type B items consist of the following pairs: Items 57 & 58, 59 (alternatives one and four), 66 & 68, and 67 & 69.

A total biculturalism score is obtained by summing the points awarded for Type A and Type B items. The highest possible score that can be obtained is 36 (highest level of biculturalism): The higher the score, the greater the degree of biculturalism.

Since the Biculturalism Inventory was developed as a measure of biculturalism for Mexican American college students and adapted for use in this study, it was necessary to test the reliability of the items used in the scale. Table A presents the corrected item-total correlation and reliability coefficients for the Biculturalism

Inventory (see Appendix E). The Biculturalism Inventory was administered only to Indian adult students in this study, with a computed reliability index of .60.

Marlowe-Crowne Social Desirability Scale. This scale was developed by Crowne and Marlowe (1964) to identify individuals who describe themselves in favorable, socially desirable terms in order to achieve the approval of others. The scale is based on items from a number of personality inventories. There is a total of 33 items related to personal attitudes and traits, with true and false response categories. Half are culturally acceptable but probably untrue; the other half are true but undesirable. One point is scored for each item marked in the socially desirable direction. Group means are computed by summing each student's scores according to their group classification, and dividing the total scores of each group by the number of students in the particular group. The scoring range is from 0 (no social desirability) to 33 (high desirability).

This measure was included in this study as a check on whether students were giving socially desirable responses relative to biculturalism and barriers to learning. In the present study, items 70 through 102 measured the social desirability factor. The reliability index for the Marlowe-Crowne Social Desirability Scale was reported at .88 using the Kuder-Richardson 20 formula (Crowne & Marlowe, 1964). All 33 items from the Marlowe-Crowne Social Desirability Scale were used in the questionnaire. However, item 96, which states, "I never make a long trip without checking the safety of my car," was not

included in the computation of the social desirability scores for both subgroups since it was not applicable to most of the Indian and Anglo adult students in the sample.

Barriers to Learning Scale. The researcher developed this scale to measure the degree to which adult students perceive problems with barriers to learning. The items of the scale were derived from the literature reviewed by the researcher. The barriers that were most frequently cited in some of the studies conducted by various states are included. Included in this scale are items from an evaluation report on the Indian Adult Learning Center in Grand Rapids, Michigan, for the academic year 1978-1979. The scale comprises three subscales. Each subscale is based on one of the three categories of learning barriers described by Cross (1979). The situational barrier subscale includes items that measure environmental problems related to community services and personal situations, such as the lack of child care and transportation and the lack of time due to family responsibilities. The dispositional barrier subscale is a measure of attitudes about learning and one's self-concept as a learner. Items include those relating to self-confidence, self-concept, self-identity, and the belief that one is "too old" to learn. The institutional barrier subscale is designed to measure barriers associated with the learning institution, such as learning environment, teaching methods, and materials. Each item for each subscale is rated on a 5-point Likert scale, with 1 indicating "Not a Problem at All" and 5 indicating "Very Important Problem." (See Appendix C.)

A group mean score for each barrier to learning in each category is determined by summing the response choices for each item on the subscale and dividing by the number of subjects in each group. The most important barrier in that category is determined by the item showing the highest mean score.

The scale is scored by categorizing the items according to the three types of learning barriers and summing the responses of each item for each of the three subscales. The total score for each category is then divided by the number of items per category to compute the means for each group. The computed means for institutional, dispositional, and situational barriers of each subject can be summed as a whole and divided by the total number of subjects to determine grand means for each type of barrier to learning. The most important category of learning barrier can then be determined by comparing grand means.

The Barriers to Learning Scale comprises items 104 through 124 of the questionnaire. In this study, the 21 items comprising the three types of learning barriers were developed by the researcher, so it was necessary to test the reliability of the items in the scale. Table B (see Appendix F) shows the corrected item-total correlations and reliability coefficients for the three subscales and for the Barriers to Learning Scale as a whole. The Situational, Dispositional, and Institutional subscales reveal reliabilities of .54, .70, and .75, respectively. The Barriers to Learning Scale as a whole was shown to have high reliability with an index of .81.

Demographic information. Items eliciting demographic information such as age, education, marital status, employment, family income, language spoken, length of current residence, and other areas are included in the Biculturalism Inventory. This information provides a profile of individuals in the sample while allowing one to examine relationships between demographics, biculturalism, and barriers to learning. Several items were taken from Ramirez et al. (1977); others were created by the researcher for use in this study.

Other area of interest. In addition to the demographic information described, item 103 in the questionnaire elicited reasons for attending the Center's Adult Education Program by Indian and Anglo adult students. A very important aspect of developing a program for adult learners is to understand their motives for learning.

Follow-up interview information. The purpose of the interview was to gauge the opinions of the students about their major problem areas in learning. It would also serve as a supplemental measure of their attitudes toward learning, environmental problems, and factors from within the Adult Education Program. The interview elicited information from a subsample of Indian and Anglo adult students on five of their most important learning barriers based on the Barriers to Learning Scale.

Items were scored from 1 to 5; 1 indicating the most important learning barrier and 5 indicating the least important barrier. A total score for each learning barrier is derived by summing the points assigned to each response alternative. Five points are assigned to a response of 1 or most important learning barrier; four points are

assigned to a response of 2 or second most important learning barrier; three points are assigned to a response of 3 or third most important learning barrier; two points are assigned to a response of 4 or fourth most important learning barrier; and one point is assigned to a response of 5 or fifth most important learning barrier: The higher the score, the more important the learning barrier.

A panel of judges was employed as a check on the data gathered from the interviews. The panel comprised two teachers, a school counselor, and the Director of the Center. Four of the 20 taped interviews were randomly selected. Each judge reviewed one of the four taped interviews and agreed upon the subjects' responses to insure consistent data.

Data Analyses

The data from the questionnaires were coded, key punched, and processed at the Computer Center at Michigan State University, using the Statistical Package for the Social Sciences (Nie, Hall, Jenkins, Steinbrenner, & Bent, 1975).

To determine the extent to which Indian adult students in the sample were bicultural, an overall scale score was computed by summing the points awarded for the Type A and Type B items.

Barriers to learning were examined in a variety of ways. When the means were plotted on the graph, and the points were connected with a line, a profile pattern resulted. If the profile patterns for both groups were similar in shape, they were considered parallel. Profile analysis was used to determine whether the mean profiles were

in fact parallel. If the group means were parallel, they were examined to determine whether their levels were the same, and whether they were significantly different. (See SPSS--MANOVA subroutine profile analysis of Michigan State University, 1980, for program procedures.) If the mean profiles were nonparallel, they were examined through repeated-measure analyses of variance to determine differences between barriers. Differences between group means for each category of learning barrier were examined through t-tests. T-tests were also used to examine differences between subjects' ethnic-group membership and degree of importance of learning barriers as a whole.

Relationships between biculturalism, barriers to learning, and demographics were examined through Pearson and Spearman correlations and one-way analyses of variance. Demographic variables were classified according to levels of measurement. The four levels were: nominal, ordinal, interval, and dichotomous. Interval- and dichotomous-level demographic variables were examined through Pearson correlations, while ordinal-level demographics were examined through Spearman correlations. One-way analyses of variance were used to test for any significant difference between survey variables and nominal-level demographic variables. In this document, the results of the correlations and the one-way analyses of variance are presented according to the four levels of demographic variables. The .05 level of probability was used to determine significance.

Finally, descriptive statistics were used to examine the interview data.

Demographic Characteristics of Sample

Table 1 presents a complete breakdown of the demographic information by ethnic group. The chi-square test was used in analyzing the data to determine any statistical significance between Indian and Anglo adult students on demographic variables. Selected demographic data are presented in this section. The detailed results of the analyses of the selected demographic characteristics are presented in Appendix G.

The majority of the Indian adult students (62.2%) were female, and more than one-third (37.8%) were male. The "average Indian adult student" was 19.9 years old, had a ninth-grade education, was unemployed, and had an annual family income of \$3,152. The vast majority of Indian adult students (82.2%) were single. Nearly two-thirds of the Indian adult students (64.4%) were enrolled part time, and slightly more than one-third (35.6%) were enrolled full time.

The majority of the Anglo adult students were female (56.4%), and less than half (43.6%) were male. The "average Anglo adult student" was 25.2 years old, had a ninth-grade education, was employed, and had an annual family income of \$3,645. The majority of the Anglo adult students (51.3%) were single, 25.6% were married, and 20.5% were divorced. Slightly more than half of the Anglo adult students (51.3%) were enrolled full time, and 48.7% were enrolled part time.

Table 1.--Chi-square analyses, frequencies, and percentages of demographic characteristics of sample by ethnic group.

Variable	Chi-Square	Sig. of Chi-Sq.	Indians (n=45)		Anglos (n=39)	
			Absolute Frequency	Relative Frequency %	Absolute Frequency	Relative Frequency %
Age	11.77595	.02				
Ages 16-19			29	64.4	16	41.0
Ages 20-24			11	24.4	7	17.9
Ages 25-29			3	6.7	5	12.8
Ages 30-39			2	4.4	6	15.4
Ages 40-49			0	0	5	12.8
No response						
Sex	.10136	.75				
Male			17	37.8	17	43.6
Female			28	62.2	22	56.4
No response						
Student Status	.99692	.32				
Full-time			16	35.6	19	48.7
Part-time			29	64.4	20	51.3
No response						
Subject's Religious Affiliation (Present)	9.03742	.06				
Catholic			17	37.8	10	25.6
Protestant			8	17.8	15	38.5
Native American			4	8.9	0	0
Other			0	0	1	2.6
None			10	22.2	7	17.9
No response			6	13.3	6	15.4
Subject's Religious Affiliation (Past) ^a						
Catholic			19	42.2	3	7.7
Protestant			10	22.2	15	38.5
Native American			2	4.4	0	0
Other			0	0	3	7.7
None			7	15.6	7	17.9
No response			7	15.6	11	28.2
Residence in Michigan	2.59801	.27				
5 to 10 years			2	4.4	2	5.1
10 to 20 years			29	64.4	19	48.7
Over 20 years			13	28.9	18	46.2
No response			1	2.2		
Residence in Grand Rapids	7.73027	.10				
Under one year			0	0	1	2.6
1 to 5 years			6	13.3	8	20.5
5 to 10 years			9	20.0	2	5.1
10 to 20 years			22	48.9	16	41.0
Over 20 years			7	15.6	12	30.8
No response			1	2.2		
Residence in Current Home	9.40080	.05				
Under one year			12	26.7	5	12.8
1 to 5 years			20	44.4	22	56.4
5 to 10 years			7	15.6	2	5.1
10 to 20 years			4	8.9	7	17.9
Over 20 years			0	0	3	7.7
No response			2	4.4		
Community in Which Subject Was Reared	1.34244	.72				
Rural			12	26.7	9	23.1
Urban			27	60.0	22	56.4
Semi-rural			2	4.4	3	7.7
Semi-urban			3	6.7	5	12.8
No response			1	2.2		
Location in Which Subject Was Reared	.22235	.89				
Michigan			42	93.3	37	94.9
Foreign country			1	2.2	1	2.6
U.S. other			2	4.4	1	2.6
No response						

Table 1.--Continued.

Variable	Chi-Square	Sig. of Chi-Sq.	Indians (n=45)		Anglos (n=39)	
			Absolute Frequency	Relative Frequency %	Absolute Frequency	Relative Frequency %
Permanent Home of Subjects	3.57143	.17				
Michigan			40	88.9	32	82.1
Foreign country			0	0	1	2.6
U.S. other			0	0	2	5.1
No response			5	11.1	4	10.3
Place of Father's Birth	6.97176	.07				
Michigan			38	84.4	25	64.1
U.S. midwest			2	4.4	3	7.7
U.S. other			1	2.2	7	17.9
Foreign country			2	4.4	2	5.1
No response			2	4.4	2	5.1
Place of Mother's Birth	5.47803	.14				
Michigan			38	84.4	30	76.9
U.S. midwest			0	0	2	5.1
U.S. other			4	8.9	7	17.9
Foreign country			2	4.4	0	0
No response			1	2.2		
Father Living	0	1.0000				
Yes			32	71.1	27	69.2
No			12	26.7	11	28.2
No response			1	2.2	1	2.6
Mother Living	3.72557	.05				
Yes			43	95.6	31	79.5
No			2	4.4	8	20.5
No response						
Language(s) Spoken by Subjects	2.07263	.15				
English			39	86.7	39	100.0
English and some other language			4	8.9	0	0
No response			2	4.4		
Language(s) Spoken at Home by Subjects	0	1.0000				
English			43	95.6	38	97.4
English and some other language			2	4.4	1	2.6
No response						
Father's Language	5.14604	.08				
English			26	57.8	30	76.9
English and some other language			15	33.3	5	12.8
Other language only			3	6.7	4	10.3
No response			1	2.2		
Mother's Language	7.62381	.02				
English			29	64.4	35	89.7
English and some other language			14	31.1	3	7.7
Other language only			2	4.4	1	2.6
No response						
Language(s) Usually Spoken at Home by Parents	.05891	.81				
English			41	91.1	37	94.9
English and some other language			4	8.9	2	5.1
No response						
Subject's Education	.33704	.56				
1 to 8			5	11.1	7	17.9
9 to 11			40	88.9	32	82.1
No response						

Table 1.--Continued.

Variable	Chi-Square	Sig. of Chi-Sq.	Indians (n=45)		Anglos (n=39)	
			Absolute Frequency	Relative Frequency %	Absolute Frequency	Relative Frequency %
Father's Education ^a						
1 to 8			7	15.6	15	38.5
9 to 11			11	24.4	2	5.1
High school			6	13.3	10	25.6
Bachelor's degree			0	0	1	2.6
Graduate degree			0	0	2	5.1
No response			21	46.7	9	23.1
Mother's Education ^a						
1 to 8			5	11.1	8	20.5
9 to 11			9	20.0	9	23.1
High school			15	33.3	14	35.9
Some college			0	0	1	2.6
No response			16	35.6	7	17.9
Subject's Occupation	12.39840	.01				
White collar			4	8.9	3	7.7
Blue collar			4	8.9	16	41.0
Housewife			1	2.2	1	2.6
Mother			3	6.7	3	7.7
Unemployed or none			26	57.8	12	30.8
No response			7	15.6	4	10.3
Father's Occupation ^a						
White collar			1	2.2	4	10.3
Blue collar			27	60.0	26	66.7
Unemployed or none			2	4.4	2	5.1
No response			15	33.3	7	18.0
Mother's Occupation	1.64922	.65				
White collar			4	8.9	6	15.4
Blue collar			17	37.8	12	30.8
Housewife			13	28.9	12	30.8
Unemployed or none			4	8.9	6	15.4
No response			7	15.5	3	7.7
Marital Status	10.17121	.01				
Single			37	82.2	20	51.3
Married			2	4.4	10	25.6
Divorced-separated			6	13.3	8	20.5
No response					1	2.6
Ethnic Background of Spouse ^a						
White			1	2.2	11	28.2
Mexican American			2	4.4	0	0
Indian			2	4.4	0	0
No response			40	88.9	28	71.8
Annual Family Income ^a						
Under \$3,000			10	22.2	6	15.4
\$3,000-4,999			8	17.8	8	20.5
\$5,000-5,999			3	6.7	2	5.1
\$6,000-7,499			2	4.4	4	10.3
\$7,500-9,999			2	4.4	2	5.1
\$10,000-14,999			6	13.3	6	15.4
\$15,000-24,000			1	2.2	1	2.6
\$25,000 and over			1	2.2	2	5.1
No response			12	26.7	8	20.5

^aFrequency too small for valid chi-square analysis.

CHAPTER IV

RESULTS

For the purposes of reporting analyses of the research data, this chapter is divided into five parts: (a) measurement of biculturalism, (b) measurement of barriers to learning, (c) the correlational analyses, (d) social desirability, and (e) reasons for attending the Center's Adult Education Program. The analysis has been conducted to determine the degree of biculturalism and barriers to learning among respondents and the relationships between these variables.

Part I. Measurement of Biculturalism

Since students who answered all items would receive high scores and those who did not answer all items would receive low scores, it was necessary to find the average biculturalism score for Indian adult students. This was done by dividing the biculturalism scores by the number of Type A and Type B items. A breakdown of biculturalism scores based upon 34 Indian adult students may be seen in Figure 1. Biculturalism scores were grouped together at intervals of .33. The lowest possible score would thus fall between 1.0 and 1.33, with the highest between 2.67 and 3.0. Hence, the higher the score the greater the degree of biculturalism. Within this study of 34 Indian adult students, the scores ranged from 1.17 to 2.58. Most of the

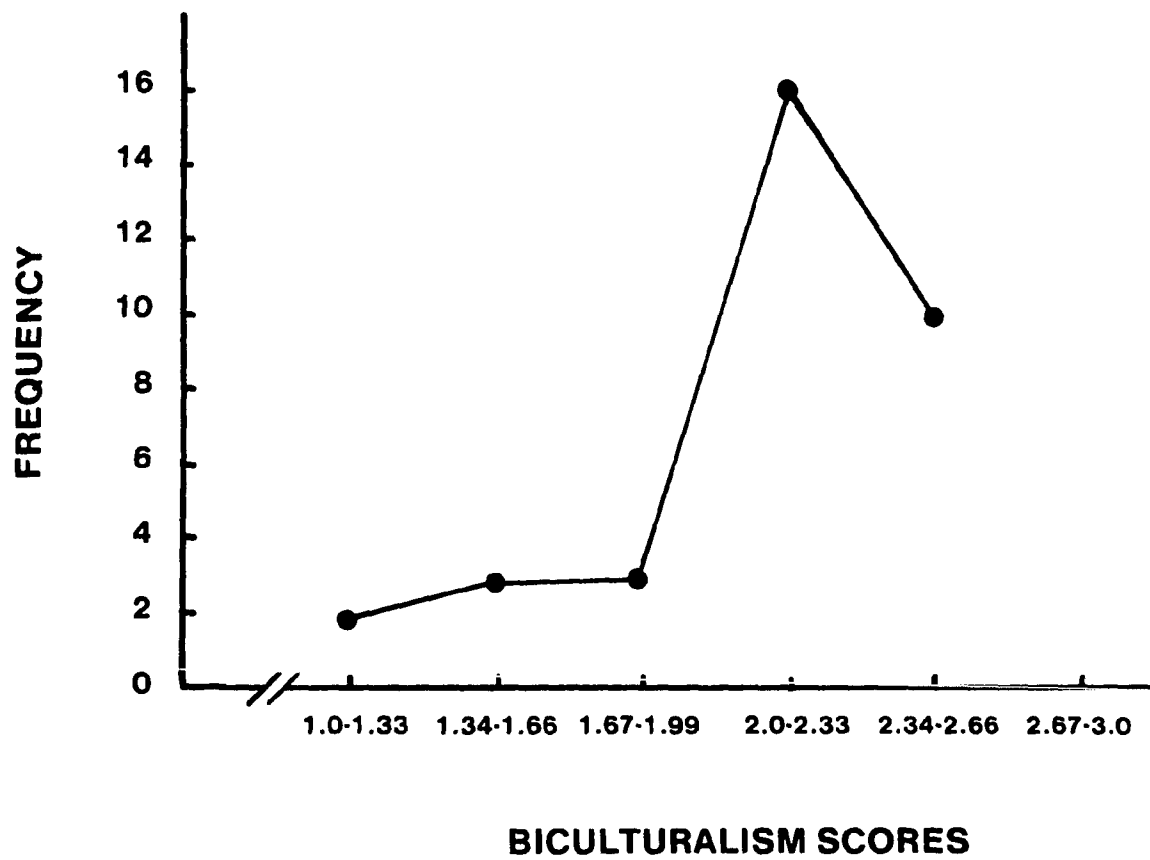


Figure 1: Distribution of Biculturalism Scale scores.

Indian adult students scored between 2.0 and 2.33, and 2.34 and 2.66. The sample mean was 2.10. Since the lowest average biculturalism score that could be obtained in this study was 1 and the highest was 3, the mean biculturalism score of 2.10 indicates that the 34 Indian adult students were moderately bicultural.

Part II. Measurement of Barriers to Learning

Degree of Importance of Barriers to Learning

Profile analysis was employed to determine whether the patterns of group means for the learning barriers were parallel, and if so, whether they were at the same level. It was also used to determine whether the group means were significantly different across learning barriers. The results are shown in Table 2. As can be seen, the group means across each category of learning barrier for Indian and Anglo adult students are parallel.

Significant differences exist between group means for the categories according to ethnic groups. Figure 2 shows a higher pattern of group means for the learning barrier categories for Indian adult students than for Anglo adult students. Multivariate tests indicate that learning barriers are significantly higher in degree of importance for Indian adult students than for Anglo adult students.

Univariate F-tests indicate no significant differences between institutional and dispositional barriers, nor between dispositional and situational barriers among Indian and Anglo adult students.

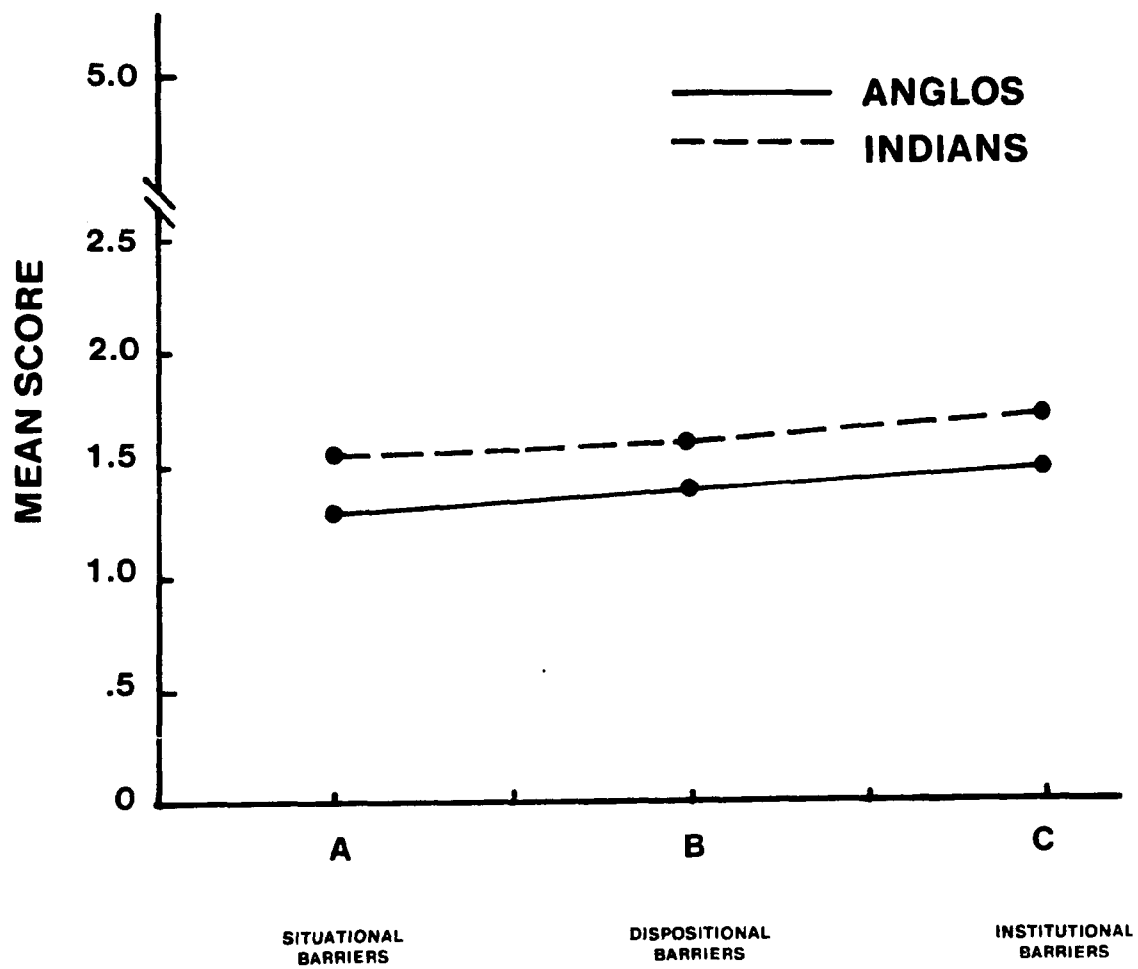


Figure 2: Profile of means for situational, dispositional, and institutional barriers for Anglo and Indian adult students.

The results indicate that situational, dispositional, and institutional barriers are of equal importance for both Indian and Anglo adult students.

Table 2.--Profile analysis for ethnic groups on learning barriers.

	F	Sig. of F
1. Test for nonparallel profiles for ethnic groups	.256 ^a	.78
2. Test for differences between ethnic groups	7.583	.01
3. Test for differences between learning barriers	4.952 ^a	.01
A. Test for differences between institutional and dispositional barriers to learning	1.653	.20
B. Test for differences between situational and institutional barriers to learning	1.929	.17

^aAn approximate F is reported.

Differences in Barriers to Learning

T-tests were conducted to determine whether there were any significant differences between group means for each category of learning barriers and learning barriers as a whole. The data are presented in Table 3. Comparisons of group means for the learning barrier categories indicate that the group means for situational and institutional barriers are significantly higher for Indian adult students

than for Anglo adult students. There is no significant difference between group means on dispositional barriers.

Table 3.--Results of t-tests on learning barrier categories and learning barriers as a whole.

Variable	Indians			t- Value	Sig. of t	Anglos		
	N	$\bar{X}$	SD			N	$\bar{X}$	SD
Situational barriers	45	1.5444	.473	-2.24	.03	39	1.3098	.485
Dispositional barriers	45	1.6278	.679	-1.53	.13	39	1.4410	.428
Institutional barriers	45	1.7461	.479	-2.25	.03	38 ^a	1.5126	.461
Learning barriers as a whole	45	1.6395	.401	-2.56	.01	38 ^a	1.4260	.350

^aOne case was missing data for this variable.

The Relationship Between Respondents' Ethnicity and Degree of Importance of Barriers to Learning as a Whole

The differences between respondents' group membership and degree of importance of barriers to learning are significant. A comparison of group means for learning barriers as a whole indicate that Indian adult students designated more importance to learning barriers as a whole than did Anglo adult students.

Degree of Importance of Factors
Within Each Category of
Learning Barriers

The means and rank order of specific barriers are presented in Table 4.

Table 4.--Means and rank order of individual learning barriers.

	Indians		Anglos	
	Mean	Rank Order	Mean	Rank Order
Situational Barriers				
Time to study	1.850	1	1.378	1
Distance	1.700	1	1.324	1
Transportation	1.600	1	1.351	1
Child care	1.100	2	1.216	1
Dispositional Barriers				
Confidence	1.977	1	1.769	1
Self-image	1.674	2	1.462	2
Interest in learning	1.674	2	1.333	2
Personal desire to learn	1.581	2	1.308	2
Age	1.116	3	1.333	2
Institutional Barriers				
GED tests	2.325	1	1.914	1
Lectures	2.100	1	1.714	1
Subjects	1.875	1	1.857	1
Class discussion groups	2.200	1	1.371	1
Books	1.725	1	1.800	1
Length of time	1.875	1	1.429	1
Individualized instruction	1.675	1	1.486	1
Class schedule	1.425	1	1.629	1
A place to study	1.375	1	1.429	1
Cost	1.325	1	1.314	1
Teacher	1.300	1	1.229	1
Location	1.250	1	1.286	1

Figure 3 exhibits the pattern of group means for situational barriers. The results of profile analysis in Table 5 indicate that the patterns of group means for situational barriers are nonparallel. To determine the degree of importance of factors for the category, situational barriers were examined through repeated-measure analyses of variance. The results are shown in Tables 6 and 7 according to ethnic group. Significant differences are noted between situational barriers overall for Indian adult students. There are no significant differences noted between situational barriers overall for Anglo adult students. Repeated measures of analyses of variance of specific barriers for the category indicate that factors of distance from home to Learning Center, lack of time to study, and lack of transportation are of equal and greater importance, respectively, than lack of child care for Indian adult students. All four situational barriers are of equal importance for Anglo adult students.

Table 5.--Profile analysis for ethnic groups on situational barriers.

	Multivariate F ^a	Sig. of F
Test for nonparallel profiles for ethnic groups	3.837	.01

^aAn approximate F is reported.

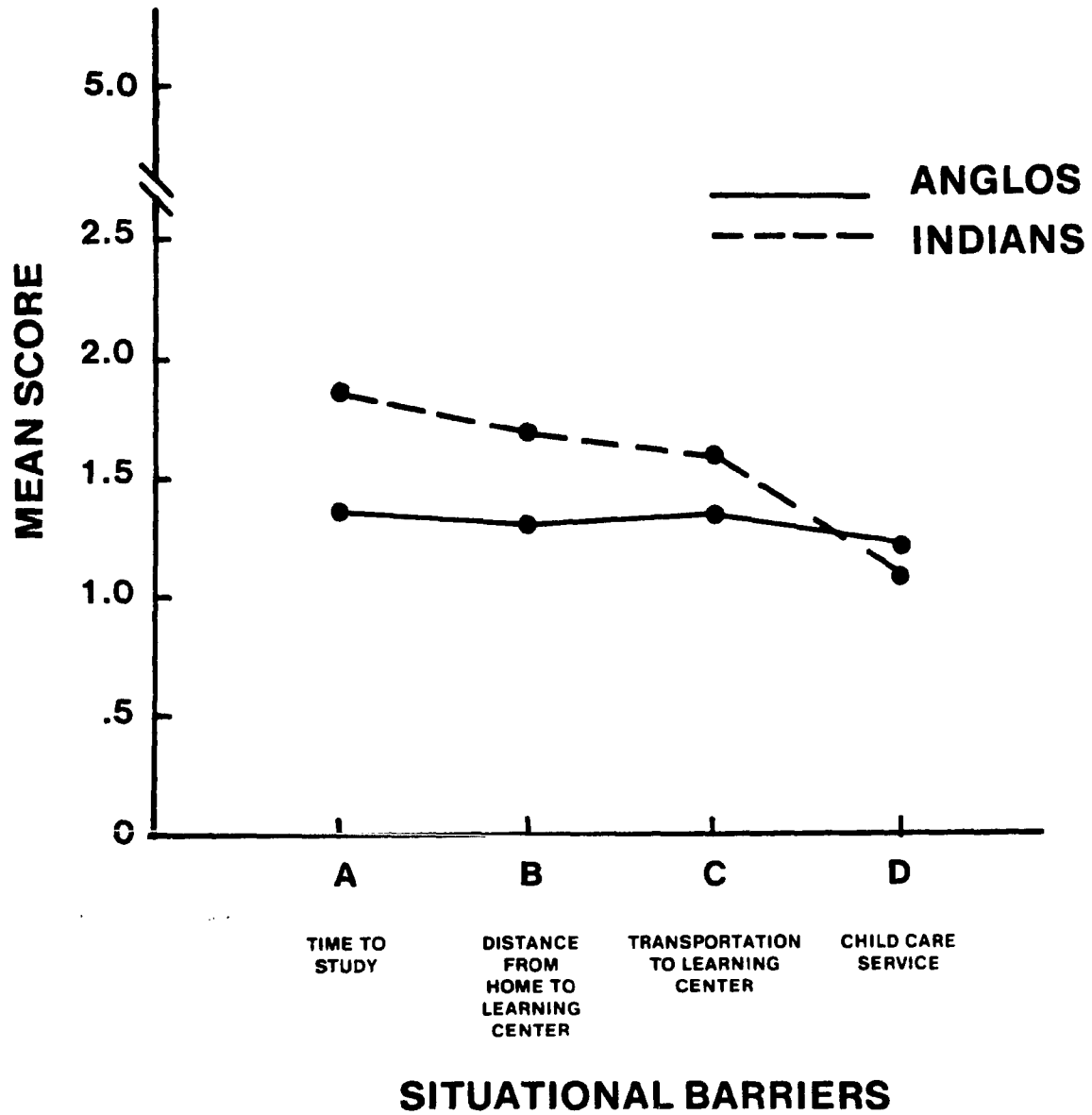


Figure 3: Profile of means for situational barriers for Anglo and Indian adult students.

Table 6.--Repeated-measure analyses of variance results for Indian adult students on situational barriers.

	Multivari- ate F ^a	Univari- ate F	Sig. of F
Overall Test for Differences Between Situational Barriers	13.662		.001
Tests for Differences Between Various Situational Barriers:			
A. Time to study and distance from home to Learning Center		1.962	.17
B. Distance from home to Learning Center and transportation		.030	.86
C. Transportation and child-care service		18.897	.001

^aAn approximate F is reported.

Table 7.--Repeated-measure analyses of variance results for Anglo adult students on situational barriers.

	Multivari- ate F ^a	Univari- ate F	Sig. of F
Overall Test for Differences Between Situational Barriers	1.389		.26
Tests for Differences Between Various Situational Barriers:			
A. Time to study and distance from home to Learning Center		.109	.74
B. Distance from home to Learning Center and transportation		.075	.79
C. Transportation and child-care service		1.295	.26

^aAn approximate F is reported.

The mean profiles of the two groups on dispositional barriers are illustrated in Figure 4. As shown in Table 8, the results of profile analysis indicate that the group means for dispositional barriers form a nonparallel pattern. There are significant differences between dispositional barriers overall for Indian and Anglo adult students. The results may be seen in Tables 9 and 10. The lack of confidence in ability is of greater importance than poor self-image, lack of interest, lack of personal desire, and age for both Indian and Anglo adult students.

Table 8.--Profile analysis for ethnic groups on dispositional barriers.

	Multivariate F_a	Sig. of F
Test for Nonparallel Profiles for Ethnic Groups	2.522	.05

^aAn approximate F is reported.

Figure 5 shows the pattern of group means for institutional barriers. The results presented in Table 11 indicate nonparallel patterns of group means for ethnic groups on institutional barriers. There are significant differences between institutional barriers overall for both Indian and Anglo adult students, though repeated-measure analyses of variance show no significant differences between specific institutional barriers. The results are shown in Tables 12 and 13. Therefore, all 12 institutional barriers are of equal importance for both Indian and Anglo adult students.

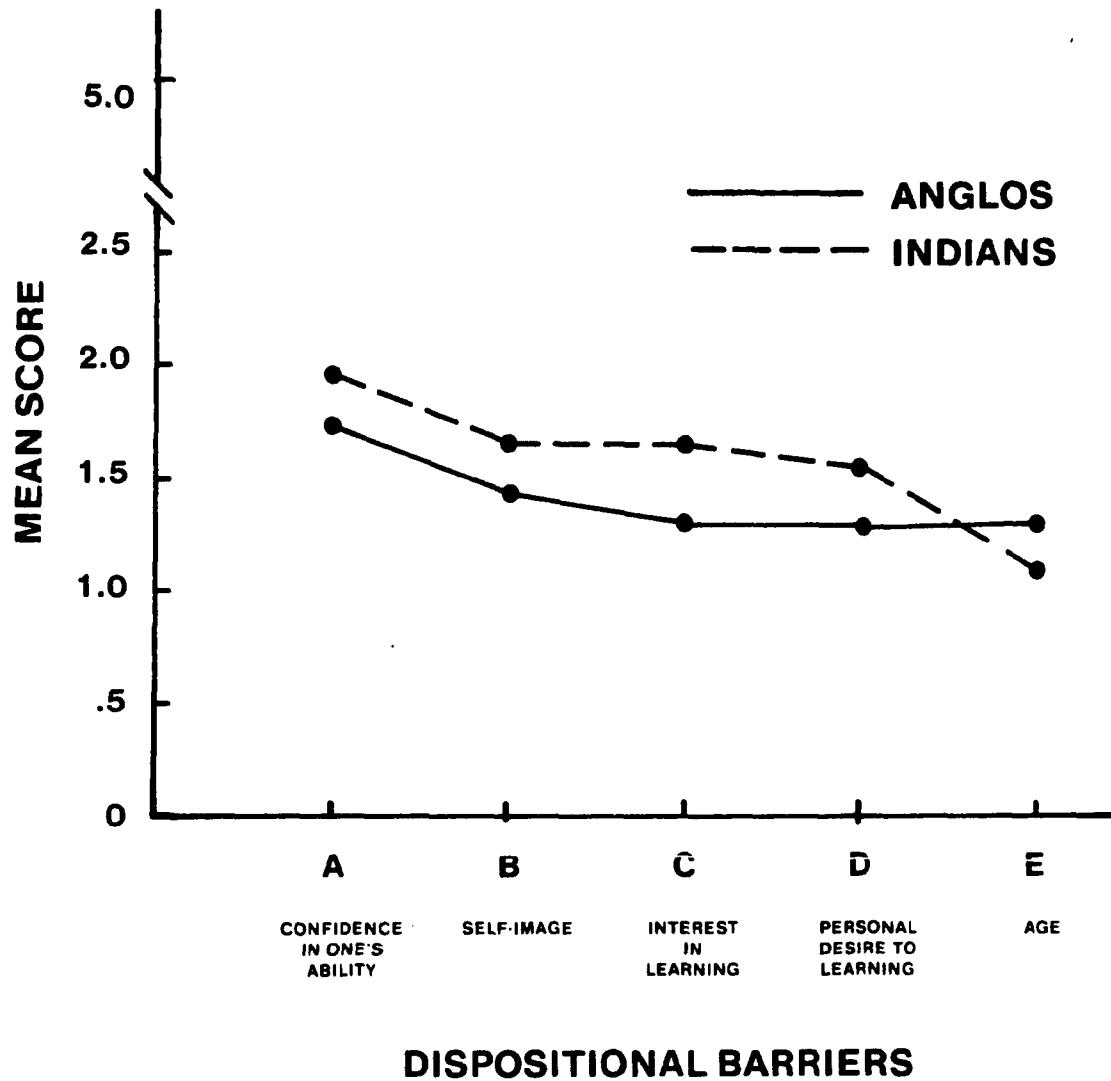


Figure 4: Profile of means for dispositional barriers for Anglo and Indian adult students.

Table 9.--Repeated-measure analyses of variance results for Indian adult students on dispositional barriers.

	Multivari- ate F ^a	Univari- ate F	Sig. of F
Overall Test for Differences Between Dispositional Barriers	15.185		.001
Tests for Differences Between Various Dispositional Barriers:			
A. Confidence in one's ability to learn and self-image		7.857	.01
B. Self-image and interest in learning		.056	.81
C. Interest in learning and personal desire to learn		1.602	.21
D. Personal desire to learn and age		18.526	.001

^aAn approximate F is reported.

Table 10.--Repeated-measure analyses of variance results for Anglo adult students on dispositional barriers.

	Multivari- ate F ^a	Univari- ate F	Sig. of F
Overall Test for Differences Between Dispositional Barriers	2.663		.05
Tests for Differences Between Various Dispositional Barriers:			
A. Confidence in one's ability to learn and self-image		4.629	.04
B. Self-image and interest in learning		.802	.38
C. Interest in learning and personal desire to learn		.046	.83
D. Personal desire to learn and age		.020	.89

^aAn approximate F is reported.

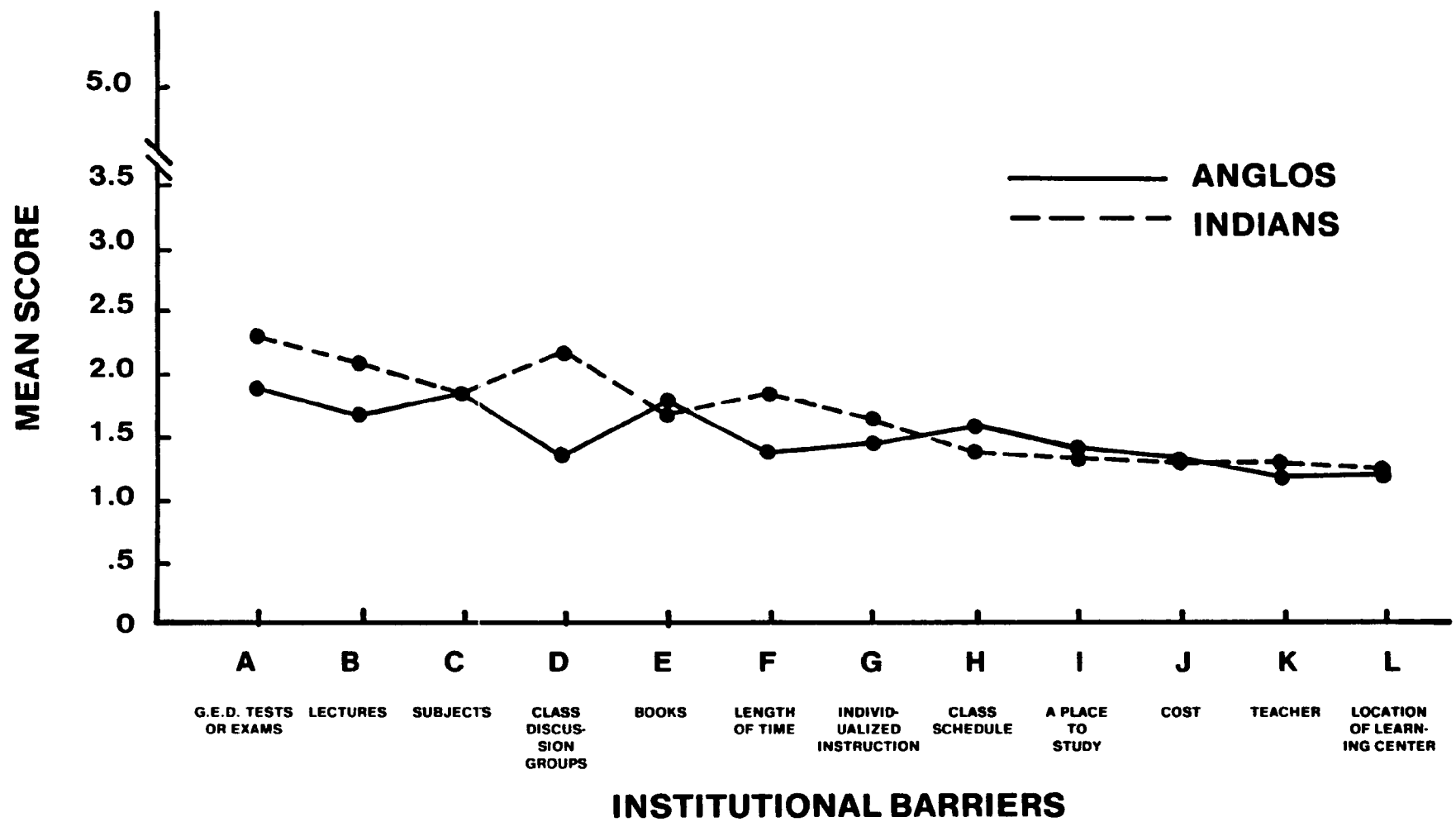


Figure 5: Profile of means for institutional barriers for Anglo and Indian adult students.

Table 11.--Profile analysis for ethnic groups on institutional barriers.

	Multivariate F ^a	Sig. of F
Test for Nonparallel Profiles for Ethnic Groups	3.482	.001

^aAn approximate F is reported.

Table 12.--Repeated-measure analyses of variance results for Indian adult students on institutional barriers.

	Multivari- ate F ^a	Univari- ate F	Sig. of F
Overall Test for Differences Between Institutional Barriers	4.961		.001
Tests for Differences Between Various Institutional Barriers:			
A. GED tests or exams and class discussion groups		.404	.53
B. Class discussion groups and lectures		.550	.46
C. Lectures and subjects		.281	.60
D. Subjects and length of time to complete education		.468	.50
E. Length of time to complete education and books		.913	.35
F. Books and individualized instruction		.034	.86
G. Individualized instruction and class schedule		1.413	.24
H. Class schedule and a place to study		2.772	.10
I. A place to study and cost		.140	.71
J. Cost and teacher		.082	.78
K. Teacher and location of Learning Center		.030	.86

^aAn approximate F is reported.

Table 13.--Repeated-measure analyses of variance results for Anglo adult students on institutional barriers.

	Multivari- ate F ^a	Univari- ate F	Sig. of F
Overall Test for Differences Between Institutional Barriers	3.043		.01
Tests for Differences Between Various Institutional Barriers:			
A. GED tests or exams and class discussion groups		.057	.81
B. Class discussion groups and lectures		.238	.63
C. Lectures and subjects		.854	.36
D. Subjects and length of time to complete education		.017	.90
E. Length of time to complete education and books		1.000	.32
F. Books and individualized instruction		.109	.74
G. Individualized instruction and class schedule		.024	.88
H. Class schedule and a place to study		.609	.44
I. A place to study and cost		.030	.86
J. Cost and teacher		.028	.87
K. Teacher and location of Learning Center		.031	.86

^aAn approximate F is reported.

Reasons Given for Learning
Barriers and Suggestions for
Coping With Reported Barriers

Twenty follow-up interviews were conducted to determine reasons why subjects felt there were various barriers in their learning situation and how they would change the barriers to improve learning. The

interview data were examined through descriptive statistics. The specific learning barriers are presented from most to least important. The results are presented in Table 14.

When rank ordered by importance, the top learning barriers for Indian adult student interviewees are (a) class discussion groups, (b) GED tests, (c) lectures, (d) transportation and length of time to complete education and (e) subject content areas.

When asked why these barriers were barriers to learning, Indian adult student interviewees reported that they were shy about speaking in front of a group of people, they felt GED tests were difficult, they lacked interest in lectures, they had no available means of transportation, they had class requirements that extended the length of time to complete their education, and they had subjects that were not interesting. (See Table 15 for comparisons given for learning barriers by ethnic group.)

When rank ordered by importance, the top learning barriers for Anglo adult student interviewees are (a) books, (b) subject content areas and GED tests, (c) interest in learning and confidence in one's ability (d) personal desire to learn, and (e) class schedule and child care.

The most frequently cited reasons for learning barriers by Anglo adult students were the following: easy or hard books, difficult to comprehend courses, difficult sections of the GED test, lack of interest in academic program, lack of self-confidence due to difficulty in courses, no personal desire to learn due to family

Table 14.--Rank order of importance and frequency distribution of learning barriers for Indian and Anglo adult student interviewees.

Indians				Anglos			
Learning Barriers	Rank Order for Group	Total Score	% Respondents Ranking as One of the Most Important	Learning Barriers	Rank Order for Group	Total Score	% Respondents Ranking as One of the Most Important
Class discussion groups	1	26	70.0	Books	1	18	70.0
GED tests	2	19	50.0	Subjects	2	16	50.0
Lectures	3	17	40.0	GED tests	2	16	40.0
Transportation	4	12	40.0	Interest in learning	3	14	40.0
Length of time	4	12	30.0	Confidence in one's ability	3	14	30.0
Subjects	5	9	30.0	Personal desire to learn	4	9	40.0 ^a
Self-image	6	7	20.0	Class schedule	5	8	30.0
Time to study	6	7	20.0	Child care	5	8	20.0
Confidence in one's ability	7	6	30.0 ^a	Location	6	7	30.0 ^a
Books	7	6	20.0	Length of time	7	5	10.0
Teacher	8	5	10.0 ^a	Distance	7	5	10.0
A place to study	9	4	20.0	Transportation	8	4	20.0 ^a
Child care	10	3	20.0	Teacher	8	4	10.0
Location of Learning Center	10	3	20.0	Time to study	9	3	20.0 ^a
Individualized instruction	10	3	20.0	Lectures	9	3	10.0
Class schedule	10	3	20.0	Age	9	3	10.0
Interest in learning	11	2	10.0	A place to study	9	3	10.0
Distance	12	1	10.0	Class discussion groups	10	2	10.0
Personal desire to learn	12	1	10.0	Individualized instruction	11	1	10.0
Age		0		Self-image		0	
Cost		0		Cost		0	

^aPercentage of responses for these variables may be higher or lower than preceding or subsequent variables due to total score received.

Table 15.--Reasons given for learning barriers by ethnic group.

Indians	Anglos
<u>Situational Barriers:</u>	<u>Situational Barriers:</u>
<u>Time to Study</u>	<u>Time to Study</u>
. Job responsibilities and other interests. . Not enough time to study due to responsibilities at home.	. Household chores and raising children. Finding time to study is hectic sometimes. . Too many distractions and noise interfere with study time. There is less time to study when I have a question to ask the teacher and she's helping somebody else. It takes about 20 minutes to wait for the teacher to get back to me.
<u>Distance</u>	<u>Distance</u>
. Too far. Not motivated in the morning. It's difficult to walk long distance.	. I live way over on Sixth Street which is about three and one-half miles from the Center.
<u>Transportation</u>	<u>Transportation</u>
. Just waiting for the bus. Takes too much time. . I don't have a car and I live a distance away. I could take the bus but you have to wait and get a schedule. . Lack of transportation at night. . No way to get to the store or school. I have a car but don't have license plates or insurance.	. I either walk or take a city bus. I can't get up early enough in the morning to catch a bus and get to class on time. . I don't drive. I don't have a car. I usually walk.
<u>Child Care</u>	<u>Child Care</u>
. It's hard to find a good babysitter. . My mom is babysitting for me. I want her to graduate, too. I feel like I'm preventing her from coming to school.	. Well, I have a school-age daughter, and I have to be in school a half an hour before she does, so therefore I have to leave anywhere from 15, maybe 20 minutes ahead to get to school on time. My daughter shouldn't be left alone and it's important that she gets to school when she's supposed to.
<u>Dispositional Barriers:</u>	<u>Dispositional Barriers:</u>
<u>Confidence in One's Ability to Learn</u>	<u>Confidence in One's Ability to Learn</u>
. Lack of confidence to learn difficult subjects. . Occasional thoughts about not being able to learn new GED material. . It's hard for me to learn.	. Because sometimes I can't comprehend what I'm supposed to be learning. . Difficulty in some courses caused self-doubt. . No interest in classes.
<u>Self-Image</u>	<u>Self-Image</u>
. Poor posture. It's just how you would appear to everybody else. What people think about you might affect how you learn and what you learn. . I would like to dress nice if I could. I think looks is important. Dressing nice doesn't make a difference in learning but it makes you feel good about yourself. All I every had was second-hand clothes ever since I was little, and I get sick of them.	. None reported.
<u>Interest in Learning</u>	<u>Interest in Learning</u>
. When I don't have any interest in certain subjects, I don't retain what I learned.	. I don't particularly care for the subjects. . Dislike classes. . Lack of interest in academic program. . Problems with assignments. Teacher is not available to give assistance.
<u>Personal Desire to Learn</u>	<u>Personal Desire to Learn</u>
. There aren't enough teachers or teacher's aides to help in independent study. Sometimes I don't study. I have to be in the mood to study.	. Busy schedule in other areas of life. Family and job are more important. . Bad mood and pressure from teachers. . When I'm pressured to do my school work I don't have the desire to learn. When I'm doing something I like or when I don't feel pressured to do school work, I do have the desire to learn. . Teachers don't support or praise students enough.

Table 15.--Continued.

Indians	Anglos
<u>Age</u> . None reported. <u>Institutional Barriers:</u> <u>GED Tests</u> . Need more time to study. . I think they'll be hard, and I might not pass them. There may be something I might have forgotten about. . It's kind of frightening not knowing whether I'm going to pass or not. It's embarrassing, too, if you don't pass. . It's hard for me to take exams because I get jumpy inside. Lack of understanding in interpreting graphs and maps. . I don't know. It's hard. <u>Lectures</u> . The main problem is having to look up at a teacher and being distracted by a group of students. I was afraid to interrupt the teacher and ask questions. I may be self-conscious and the group might think I'm dumb if I asked questions. . No interest in lectures. . Lectures are boring because there is no student participation. . The teacher goes on and on about one specific thing. The student loses interest when teacher gives too many details. The group doesn't interact as much as they should. Students don't get a chance to participate. <u>Subjects</u> . Disinterest in general high school subjects. Material is not retained. . I have a lot of problems with math. When I was a kid I never did my math ... so it's my own fault that I'm not good at math. . I don't know anything about government, politics, or anything like that. I just don't keep up with anything like that. <u>Class Discussion Groups</u> . I don't like to talk in front of a bunch of people. I might say something wrong or something. Everybody might start laughing. . I'm shy and it takes all Indian people a while to open up. . A person loses interest when the teacher makes the students switch from group to group. . I'm kind of a shy person and it's kind of hard for me to get up in a room where I don't know these people. But if I'm sitting around with a bunch of friends, it's a lot easier. . Different people might talk about something you might not know about or have experienced, and you have to sit there for a whole hour just listening to these people. It's a waste of time and boring. . I just don't like talking in front of other people. . Because I don't like to talk in front of other people, especially if I don't know them.	<u>Age</u> . Well, basically, it's because I've been out of school for several years. Thirty years is a long time to be out of school. I'm trying to get myself back into the habit of learning to study and learning to apply my mind in things that I haven't done in a long time. <u>Institutional Barriers:</u> <u>GED Tests</u> . Tests are not easy. Can't study at home. . I'm not very good in some subjects. . Not being prepared to answer 20 common sense questions on the science test. . I'm afraid I'll fail. I know I'm not very smart. <u>Lectures</u> . I don't like lectures. I just don't like them. You're not allowed to talk. <u>Subjects</u> . I'm not very good in math and English. Can't comprehend some of it. . I don't like history and English. They're real hard, too. . I found it difficult in math. . Math is a problem. Lack of background in math. . I don't understand the subjects. Directions are not clear in English book. Lack of assistance from teacher. <u>Class Discussion Groups</u> . Teachers are often enthused and want to get the kids involved. There is no way they can budge them into it because they're too shy or they don't want to participate. Some teachers get mad when students don't talk. It's not mandatory that they participate, so they just sit there looking like dummies. If I got myself in that position I wouldn't like it. Teachers won't come out and say it in the open. At least here they don't. At other schools, teachers say they're not going to teach if students won't even cooperate.

Table 15.--Continued.

Indians	Anglos
<u>Institutional Barriers (continued):</u>	<u>Institutional Barriers (continued):</u>
<u>Books</u>	<u>Books</u>
. Need easier books. Not enough books. There are only basic high school books. No library. . Textbooks too difficult to read.	. Too many books. Don't know what books to bring each day. . Math book is so simple. It's boring. I mean it is so terribly simple that you make very, very dumb mistakes on it. I don't know whether this is to make you use your mind and think before you act or what. But I find that when I'm working on something that is a little more complicated, I'm more apt to put more of my mind into it. . They're either too easy or too hard. . Some books are difficult for me to understand. . History textbook is hard to do. . Difficult to understand without explanation from teacher. Directions are not clear or precise enough in some books. . No answers to questions in books.
<u>Length of Time</u>	<u>Length of Time</u>
. Too many required classes. Time is a factor. . Too long. Difficulty with assignments and work responsibilities. . Not old enough to take GED tests.	. I'm involved in the WIN Program and my problem is with my WIN worker. He keeps on telling me he wants to put me in another program. He wanted to pull me out of my studies in the middle of December. I don't like being pressured. It makes me nervous, then I have a rough time studying. Being pressured for time is what it boils down to.
<u>Individualized Instruction</u>	<u>Individualized Instruction</u>
. No self-discipline. You might be studying and someone comes in and starts talking and you don't want to tell him to go away because he's your friend. . No problem, except when I get stuck on difficult assignments.	. Directions in books don't explain anything. They confuse you.
<u>Class Schedule</u>	<u>Class Schedule</u>
. Fatigue was a problem when I was going to school and working at the same time. Evening classes were basic high school courses. There's only independent study at night. . It's hard to get up in the morning. I'm not used to the early morning class schedule.	. Inconvenient class schedule. . Morning classes--Schedule is so varied that you don't know which book to take. . Schedule conflict between classes for school and classes for Vocational Rehabilitation.
<u>A Place to Study</u>	<u>A Place to Study</u>
. It is difficult to study when other students are talking and laughing. . Everybody's always talking. Can't study.	. It's too quiet.
<u>Cost</u>	<u>Cost</u>
. None reported.	. None reported.
<u>Teachers</u>	<u>Teachers</u>
. Instruction provided by teachers is too general; they don't provide instruction in specialized areas or at advanced levels.	. They think of themselves. Certain ones do. There is one teacher I really like. I like this person a lot. But we come to school for three hours and he wants to leave after only an hour for his own satisfaction. That isn't right, and he does that all the time.
<u>Location</u>	<u>Location</u>
. The Center is located too far away from where I live. . It's not a bad place. The fact is that I live so far away.	. Because I live so far away. . Well, it's not really a problem for me, but I think it is a problem for some of the people who live far away. They don't have buses to bring the kids to school. . I think it's a hassle for them to walk over here. . It is over a mile from where I live and there is no direct busline anywhere near.

responsibilities and pressure from teachers, inconvenient class schedule, and lack of child care.

Table 16 presents the suggestions for coping with learning barriers by ethnic groups.

Part III. Correlational Analyses

To help explain the extent of learning barriers among Indian and Anglo adult students, it was important to determine the relationships between biculturalism, barriers to learning, and demographic variables. Pearson correlations, point-biserial correlations, and one-way analyses of variance were employed to determine whether the relationships and differences found between the variables in this study were statistically significant.

Relationships Between Biculturalism and Barriers to Learning

It can be seen from Table 17 that a low but statistically significant negative correlation exists between biculturalism and situational barriers. It appears that the higher the biculturalism scores of Indian adult students, the lower the importance of their situational barriers. No relationships exist between dispositional, institutional, learning barriers as a whole, and degree of biculturalism.

Table 16.--Suggestions for coping with learning barriers by ethnic group.

Indians	Anglos
<u>Situational Barriers:</u>	<u>Situational Barriers:</u>
<u>Time to Study</u>	<u>Time to Study</u>
. I would find a ride to the Learning Center on a different night when I'm not busy. . I think I'd make out a time schedule for a day.	. I have two teenage children in school and another one in elementary school, and they bring their school work and we make it a family affair . . . we all get our school work out and sit around the table and start "quiet time," our study time. We study together at least three times a week--sometimes every night if we have a lot of work to do. And I help them out and they help me out. . Provide two teachers for each class. One teacher would be responsible for teaching the class and the other would be responsible for administering the tests.
<u>Distance</u>	<u>Distance</u>
. Attend classes once or twice a week rather than four or five times a week. Do class assignments at home.	. I would work on my assignments at home and come to school when I need help.
<u>Transportation</u>	<u>Transportation</u>
. Buy a car or move closer to Learning Center. Join a car pool. . I intend to save money and get my car on the road. . I'd look into the bus schedule. The bus would be my only option.	. Will obtain car and license in order to get to school. . Buy a car. Take a bus. Ask a friend for a ride.
<u>Child Care</u>	<u>Child Care</u>
. Hire an older woman who has raised a few children of her own. . Child Care Service Program should be staffed by considerate and experienced mothers who can provide proper care for children.	. I would get a reliable person to take care of the child . . . I would ask one of my neighbors that I know would be willing to take care of my daughter and see that she goes to school, while I'm on my way to school. . The Department of Social Services should provide transportation for its clients.
<u>Dispositional Barriers:</u>	<u>Dispositional Barriers:</u>
<u>Confidence in One's Ability</u>	<u>Confidence in One's Ability</u>
. Ask staff for assistance in improving self-confidence. . Improve reading skills and consult with a teacher when in need of help. . Think positive and be enthusiastic.	. Need to complete assignments in order to improve confidence. . Teachers are available to help students. . Enroll in classes that are interesting.
<u>Self-Image</u>	<u>Self-Image</u>
. None. . Buy new clothes.	.None reported.
<u>Interest in Learning</u>	<u>Interest in Learning</u>
. Individualize the courses or subjects to the interests of students.	. Program should provide a wide range of books. . Students should learn on their own. . Different class projects. Do volunteer work in local government or visit a State Senator. . Teachers should use one book at a time.

Table 16.--Continued.

Indians	Anglos
<u>Dispositional Barriers (continued):</u>	<u>Dispositional Barriers (continued):</u>
<u>Personal Desire to Learn</u>	<u>Personal Desire to Learn</u>
. Concentrate more on learning. Find a quiet room in the Center to study.	. Take fewer courses. Need more time to improve desire to learn. . I don't know. . Complete homework at school. Get help from teachers. . Teachers should be more supportive. Teachers should let students know how well they are doing. A student must be assertive and communicate his/her feelings to the teacher.
<u>Age</u>	<u>Age</u>
. None reported.	. For me, it's just a process of retraining myself to study and to concentrate on what I'm doing.
<u>Institutional Barriers:</u>	<u>Institutional Barriers:</u>
<u>GED Tests</u>	<u>GED Tests</u>
. Take a class on GED tests. . Take a course on testing and a class on graphs. . Continue to study. . Find out which test is scheduled and prepare for it more thoroughly. . Study more and gain self-confidence.	. Study more at Center. . Don't test students on subjects they already know. . Prepare myself more. Do more research. . Teachers should explain the directions and rules for taking the GED tests.
<u>Lectures</u>	<u>Lectures</u>
. Lectures should be either tape recorded or videotaped and made available for student use. . A lecture should not be conducted when the whole class has no interest in it. . None. . Teachers should more actively involve students in class participation. Teachers should call on individuals.	. If I were lecturing, I would probably stop every once in a while and ask questions to make sure people are listening, or get them involved in the conversation.
<u>Subjects</u>	<u>Subjects</u>
. Expand course offerings. Individualize each course. Basic courses should be available also. . Take a math course and be self-motivated. . I would read more about the subject and I would ask my history teacher to clear things up.	. Read more in the area of English. In math, I need someone to show me how to do it or how to go about it sometimes. . Reduce the amount of course work. . Study more. I would particularly study more about the metric system. . Ask a teacher to explain a problem. . Workbooks should be written in plain English.
<u>Class Discussion Groups</u>	<u>Class Discussion Groups</u>
. Teachers should give students a list of topics to talk about in discussion groups, and students could select the topics. . It takes time for people to get to know each other. People should get to know each other one at a time until the whole group gets to know each other. . Improve vocabulary and learn to speak better. . I would not listen or attend class to participate in group discussions. . I would participate in group discussions only when I'm asked to answer a question. . None.	. Divide the class in groups of two or three students and then give them questions and let them write down the answers--their feelings about the topics. Let each group discuss their thoughts. Raise questions and then go around and ask each of the groups to answer them.

Table 16.--Continued.

Indians	Anglos
<u>Institutional Barriers (continued):</u>	<u>Institutional Barriers (continued):</u>
<u>Books</u>	<u>Books</u>
. Offer a list of books available so that students can select materials according to their own needs and interests. If lockers were provided for student use, it would help to cut down on the number of book replacements. A library is needed. . Do more reading.	. Ask teachers for help and directions. . Read more often and look up words that I don't know in the dictionary. . Let teachers know if books are too easy or too hard. . Ask a teacher for suggestions. Provide workbooks. . Leave books at Center and then wouldn't forget to bring them to class. . Questions should be written more clearly in books and answers should be provided. . Improve tests for assessing math and reading skills of adult students entering program.
<u>Length of Time</u>	<u>Length of Time</u>
. None. . I would like to work on other subjects at the Center during weeknights when classes are not scheduled. . Continue to work and prepare for GED tests.	. Would work at own pace. Call my vocational rehabilitation counselor to find out about what I can do to stay and finish the program.
<u>Individual Instruction</u>	<u>Individual Instruction</u>
. Put up a partition or post signs designating areas for studying and socializing in the student lounge. Have instructors supervise students. Have teachers keep the noise down in the independent study room. . Ask a teacher for help on difficult assignments.	. Directions in workbooks should be clearly written.
<u>Class Schedule</u>	<u>Class Schedule</u>
. Provide transportation to skill or vocational center on weeknights. . Buy an alarm clock.	. Offer more evening classes. . Teachers need to tell students what they're going to do each day and what books to bring. . Talk to school counselor about scheduling problems.
<u>A Place to Study</u>	<u>A Place to Study</u>
. Study at home. . Ask teachers to help keep study areas quiet.	. Allow students to listen to music while studying in the classroom.
<u>Cost</u>	<u>Cost</u>
. None reported.	. None reported.
<u>Teacher</u>	<u>Teacher</u>
. Require higher education for teachers. More specialized instruction. More teachers.	. I talked to the counselor and he told me to talk with the teacher, and I already did. They know everything. They want more money but they don't want to do more work. Also, I think students should speak up. Tell it like it is. That's one thing I like about this school.
<u>Location</u>	<u>Location</u>
. None. . Go to a different Center closer to home. Prefer Indian Adult Learning Center because of CETA component. Likes staff and other students.	. I could go to another school but I don't want to do that. I like the program. I like the teachers. I like the people. . School buses should be provided. . The location is convenient for most of the people attending the program. It is inconvenient for some people, but we'll learn to adjust to the situation.

Table 17.--Pearson correlation coefficients for biculturalism with barriers to learning.

Variable	N	r	Sig. of r
Situational barriers	34	-.2872	.05
Dispositional barriers	34	.0420	.41
Institutional barriers	34	-.0957	.30
Learning barriers as a whole	34	-.1249	.24

Relationships Between Barriers to Learning and Demographic Variables

Pearson correlations were computed between categories of learning barriers and demographics to determine the relationships among Indian and Anglo adult students. The results are shown in Table 18.

As shown in Table 18, the correlations indicate a trend in the direction of a negative relationship between time of residence in current home and situational barriers among Indian adult students: The shorter the time of residence in their current home, the greater the importance of their situational barriers. It also appears that student status is positively related to situational barriers. This relationship suggests that more full-time Indian adult students assigned more importance to situational barriers than did part-time Indian adult students.

A low but statistically significant positive correlation between age and situational barriers among Anglo adult students exists: The older the Anglo adult students, the greater the importance of situational barriers.

Table 18.--Pearson correlation coefficients for situational, dispositional, institutional, and learning barriers as a whole with various demographic variables.

Type of Barriers to Learning Variable	Indians			Anglos		
	N	r	Sig. of r	N	r	Sig. of r
Situational Barriers						
Age	45	.0313	.42	39	.2721	.05
Sex ^a	45	.0414	.39	39	.1099	.25
Student status ^a	45	.2443	.05	39	-.0121	.47
Residence in Michigan	44	.0289	.43	39	.1008	.27
Residence in Grand Rapids	44	.1509	.16	39	.0860	.30
Residence in current home	43	-.2737	.04	39	.0040	.49
Father living ^a	44	-.0049	.49	38	-.1201	.24
Mother living ^a	45	.2677	.04	39	.2351	.08
Language(s) spoken by subjects ^a	43	-.0286	.43	39		
Language(s) usually spoken at home by parents ^a	45	.0538	.36	39	-.1505	.18
Language(s) spoken at home by subjects ^a	45	-.1934	.10	39	.2340	.08
Subject's education	45	-.0241	.44	39	-.0206	.45
Father's education	24	-.0723	.37	30	-.1165	.27
Mother's education	29	-.0583	.38	32	-.3501	.03
Dispositional Barriers						
Age	45	.2884	.03	39	-.1617	.16
Sex ^a	45	-.2136	.08	39	-.0859	.30
Student status ^a	45	-.1491	.16	39	.0460	.39
Residence in Michigan	44	.2864	.03	39	-.1078	.26
Residence in Grand Rapids	44	.2108	.09	39	.0032	.49
Residence in current home	43	-.3078	.02	39	.2408	.07
Father living ^a	44	.2958	.03	38	-.2885	.04
Mother living ^a	45	-.0491	.37	39	-.0493	.38
Language(s) spoken by subjects ^a	43	-.0868	.29	39		
Language(s) usually spoken at home by parents ^a	45	.0103	.47	39	.1424	.19
Language(s) spoken at home by subjects ^a	45	.1196	.22	39	-.1692	.15
Subject's education	45	-.1517	.16	39	.3521	.01
Father's education	24	-.1830	.20	30	.0928	.31
Mother's education	29	-.1099	.29	32	-.0444	.41
Institutional Barriers						
Age	45	.0006	.50	38	.1810	.14
Sex ^a	45	-.2381	.06	38	-.1302	.22
Student status ^a	45	-.0625	.34	38	-.0413	.40
Residence in Michigan	44	.0495	.38	38	-.0905	.29
Residence in Grand Rapids	44	.0021	.50	38	-.0285	.43
Residence in current home	43	-.1475	.17	38	.1353	.21
Father living ^a	44	.0488	.38	37	.1533	.18
Mother living ^a	45	-.0396	.40	38	.3546	.01
Language(s) spoken by subjects ^a	43	-.1654	.15	38		
Language(s) usually spoken at home by parents ^a	45	.1225	.21	38	-.1361	.21
Language(s) spoken at home by subjects ^a	45	.2054	.09	38	-.0648	.35
Subject's education	45	-.3567	.01	38	-.0500	.38
Father's education	24	-.0982	.32	29	-.0045	.49
Mother's education	29	-.1980	.16	31	-.0897	.32
Learning Barriers as a Whole						
Age	45	.1752	.13	38	.1593	.17
Sex ^a	45	-.1989	.10	38	-.0285	.43
Student status ^a	45	-.0130	.47	38	-.0193	.45
Residence in Michigan	44	.1926	.11	38	-.0163	.46
Residence in Grand Rapids	44	.1783	.12	38	.0552	.37
Residence in current home	43	-.3378	.01	38	.1534	.18
Father living ^a	44	.1838	.12	37	-.0904	.30
Mother living ^a	45	.0617	.34	38	.2385	.08
Language(s) spoken by subjects ^a	43	-.1262	.21	38		
Language(s) usually spoken at home by parents ^a	45	.0757	.31	38	-.0746	.33
Language(s) spoken at home by subjects ^a	45	.0731	.32	38	.0088	.48
Subject's education	45	-.2369	.06	38	.1397	.20
Father's education	24	-.1686	.22	29	-.0551	.39
Mother's education	29	-.1770	.18	31	-.2260	.11

^aFor dichotomous-level demographic variables, point-biserial correlation coefficients are reported.

There is a somewhat low but statistically significant negative correlation between mothers' education and situational barriers: The higher the level of education of Anglo mothers, the lower the importance of situational barriers of Anglo adult students.

Pearson correlation coefficients for dispositional barriers indicate low, but statistically significant, positive correlations between age, time of residence in Michigan, and dispositional barriers among Indian adult students. These correlations suggest that older Indian adult students, along with those Indians who have lived in Michigan for a longer period of time, tended to report a greater degree of importance for their dispositional barriers.

As with situational barriers, a low relationship exists between time of residence in current home and dispositional barriers for Indian adult students: The shorter the time of residence in their current home, the greater the importance of dispositional barriers.

A statistically significant correlation exists between subject's educational level and dispositional barriers for Anglo adult students: The higher the level of education of Anglo adult students, the greater the importance of dispositional barriers.

Only one of the correlations for the institutional barriers is statistically significant. This significant relationship exists between the level of education among Indian adult students and their degree of institutional barriers: The higher the level of education of the Indian adult students, the lower the importance of their institutional barriers.

Pearson correlations were also computed between learning barriers as a whole and various demographic variables. A somewhat low, though statistically significant, negative correlation exists between time of residence in current home and learning barriers as a whole among Indian adult students: The shorter the time of residence in their current home, the greater the importance of their learning barriers as a whole.

Spearman correlation coefficients for learning barrier categories and learning barriers as a whole may be seen in Table 19. A somewhat low, though statistically significant, positive correlation exists between father's language(s) and dispositional barriers among Anglo adult students: The more English is spoken by fathers of Anglo subjects, the greater the degree of importance of dispositional barriers of Anglo adult students. A statistically significant positive correlation exists between Anglo adult students' annual family income and dispositional barriers: The higher their annual family income, the greater the importance of their dispositional barriers.

Before all three categories of learning barriers and learning barriers as a whole were examined through one-way analyses of variance by all other demographic variables, it was noted that few Indian adult students indicated Native American as either their present religion ($n = 4$) or past religion ($n = 2$); therefore, the response choice was dropped. The variables on religion then comprised three categories: Catholic, Protestant, and none. The variables of past and present religion are based on the three categories.

Table 19.--Spearman correlation coefficients for situational, dispositional, institutional, and learning barriers as a whole with other demographic variables.

Type of Barriers to Learning Variable	Indians			Anglos		
	N	r	Sig. of r	N	r	Sig. of r
Situational Barriers						
Place of father's birth	43	-.0963	.27	37	.0606	.36
Place of mother's birth	44	.0252	.44	39	.2275	.08
Father's language(s)	44	.1856	.11	39	-.1506	.18
Mother's language(s)	45	.2162	.08	39	-.1108	.25
Annual family income	33	-.2194	.11	31	-.2813	.06
Dispositional Barriers						
Place of father's birth	43	-.1579	.16	37	.1134	.25
Place of mother's birth	44	-.0498	.38	39	.0071	.48
Father's language(s)	44	.0602	.35	39	.3349	.02
Mother's language(s)	45	.0192	.45	39	.1687	.15
Annual family income	33	-.0980	.29	31	.3830	.02
Institutional Barriers						
Place of father's birth	43	-.1749	.13	36	.3018	.04
Place of mother's birth	44	-.0100	.48	38	.1761	.15
Father's language(s)	44	.1337	.19	38	.1347	.21
Mother's language(s)	45	.1891	.11	38	-.0742	.33
Annual family income	33	-.1512	.20	30	-.2558	.09
Learning Barriers as a Whole						
Place of father's birth	43	-.2301	.07	36	.1531	.19
Place of mother's birth	44	-.0486	.38	38	.1630	.17
Father's language(s)	44	.1682	.14	38	.1607	.17
Mother's language(s)	45	.1903	.11	38	.0347	.42
Annual family income	33	-.2445	.09	30	-.0544	.39

Because there were several subjects ($n = 38$) in the sample who were unemployed, the variable of subjects' occupation represents students who were classified according to nonworking and working groups. Due to the small number of cases for the occupational categories according to Reiss et al. (1961), the variables of father's occupation

and mother's occupation were recoded. The father's occupation variable was recoded to blue-collar and white-collar categories. The categories reflect socioeconomic status as measured by the father's occupation. The mother's occupation variable is based on two categories: non-working and working.

As shown in Table 20, one-way analyses of variance reveal no significant differences between situational, dispositional, and institutional barriers, learning barriers as a whole, and demographic variables among Indian adult students.

Permanent home was a nominal variable, with only one category, and therefore could not be included in the analyses for the Indian adult students.

A significant difference exists between location of community in which subject was reared (Michigan, Canada, United States, Other) and institutional barriers among Anglo adult students.

A significant difference exists between subject's occupation and learning barriers as a whole among Anglo adult students. Alternately, working and nonworking Anglo adult students differ significantly on learning barriers as a whole.

Relationships Between Biculturalism and Demographic Variables

Pearson correlations were computed to investigate relationships between biculturalism and various demographic variables. The results are shown in Table 21. No significant relationships exist between biculturalism and demographic variables.

Table 20.--One-way analyses of variance results for situational, dispositional, institutional, and learning barriers as a whole.

Type of Barriers to Learning Variable	Indians			Anglos		
	N	F	Sig. of F	N	F	Sig. of F
Situational Barriers						
Present religion	35	.17	.85	32	2.03	.15
Past religion	36	2.10	.14	25	.28	.76
Permanent home				35	.39	.68
Location of community in which subject was reared	45	.61	.55	39	1.05	.36
Community in which subject was reared	44	.69	.56	39	.28	.84
Subject's occupation	38	1.99	.17	35	3.84	.06
Father's occupation	28	.53	.47	30	.80	.38
Mother's occupation	38	.62	.44	36	.08	.78
Marital status	45	3.00	.06	39	.20	.82
Dispositional Barriers						
Present religion	35	1.70	.20	32	1.53	.23
Past religion	36	1.03	.37	25	2.10	.15
Permanent home				35	1.33	.28
Location of community in which subject was reared	45	.45	.64	39	.16	.85
Community in which subject was reared	44	.42	.74	39	.77	.52
Subject's occupation	38	.61	.44	35	2.09	.16
Father's occupation	28	.10	.75	30	0	.99
Mother's occupation	38	.21	.65	36	.98	.33
Marital status	45	.81	.45	39	.94	.40
Institutional Barriers						
Present religion	35	1.22	.31	31	.82	.45
Past religion	36	2.35	.11	25	1.80	.19
Permanent home				34	1.07	.36
Location of community in which subject was reared	45	.39	.68	38	4.90	.01
Community in which subject was reared	44	.69	.57	38	.49	.70
Subject's occupation	38	.53	.47	34	2.43	.13
Father's occupation	28	.07	.80	30	.01	.94
Mother's occupation	38	.24	.63	35	.01	.91
Marital status	45	.53	.60	38	1.75	.19
Learning Barriers as a Whole						
Present religion	35	1.35	.28	31	1.60	.22
Past religion	36	2.60	.10	25	1.26	.30
Permanent home				34	.64	.53
Location of community in which subject was reared	45	.84	.44	38	1.45	.25
Community in which subject was reared	44	1.01	.40	38	.07	.98
Subject's occupation	38	.44	.51	34	4.50	.04
Father's occupation	28	.31	.58	30	.22	.65
Mother's occupation	38	.13	.72	35	.26	.61
Marital status	45	1.80	.18	38	1.12	.34

Table 21.--Pearson correlation coefficients for biculturalism with various demographic variables.

Variable	N	r	Significance of r
Age	34	-.0313	.43
Sex ^a	34	-.1020	.28
Student status ^a	34	.0553	.38
Residence in Michigan	33	-.0577	.38
Residence in Grand Rapids	33	.1650	.18
Residence in current home	32	.1452	.21
Father living ^a	33	.0154	.47
Mother living ^a	34	-.0909	.31
Language(s) spoken by subjects ^a	33	-.1944	.14
Language(s) usually spoken at home by parents ^a	34		...
Language(s) spoken at home by subjects ^a	34	-.0397	.41
Subject's education	34	.1895	.14
Father's education	18	-.2220	.19
Mother's education	22	.3453	.06

^aFor dichotomous-level demographic variables, point-biserial correlation coefficients are reported.

Spearman correlation coefficients were also computed for biculturalism. The results are presented in Table 22. A statistically significant negative correlation exists between father's language(s) and biculturalism: The more English is spoken by fathers of Indian ancestry, the higher the degree of biculturalism of Indian adult students. Alternately, the less English is spoken by fathers of Indian ancestry, the lesser the degree of biculturalism of Indian adult students.

Table 22.--Spearman correlation coefficients for biculturalism with other demographic variables.

Variable	N	r	Significance of r
Place of father's birth	33	.1354	.23
Place of mother's birth	34	.1701	.17
Father's language(s)	33	-.3910	.01
Mother's language(s)	34	-.1947	.14
Annual family income	26	-.0553	.40

One-way analyses of variance were employed to test for any significant differences between biculturalism and demographic variables. The results are presented in Table 23.

Table 23.--One-way analyses of variance results for biculturalism.

Variable	N	F	Significance of F
Present religion	30	2.78	.06
Past religion	29	4.14	.02
Location of community in which subject was reared	34	.39	.68
Community in which subject was reared	33	.21	.89
Subject's occupation	30	.00	.95
Father's occupation	22	.18	.68
Mother's occupation	31	.34	.57
Marital status	34	1.18	.32

It might be noted that there is a significant difference between past religion and biculturalism.

Part IV. Social Desirability

In this study two fairly sensitive topics, biculturalism and barriers to learning, were investigated. The topics may elicit socially desirable responses. This aspect was examined to determine whether social desirability was a factor in responses to biculturalism and barriers to learning variables. Pearson correlation coefficients for social desirability are shown in Table 24.

Table 24.--Pearson correlation coefficients for social desirability with biculturalism and barriers to learning.

Variable	Indians			Anglos		
	N	r	Sig. of r	N	r	Sig. of r
Biculturalism	34	.0693	.35			
Situational barriers	45	-.2381	.06	39	.1065	.26
Dispositional barriers	45	.1637	.14	39	.3769	.01
Institutional barriers	45	.2079	.09	38	.2442	.07
Learning barriers as a whole	45	.0815	.30	38	.3072	.03

The social desirability scores of the Anglo adult students correlate significantly with the degree of importance of their dispositional barriers and learning barriers as a whole: The higher the social desirability scores of the Anglo adult students, the greater the importance of their dispositional barriers; also,

the higher their social desirability scores, the greater the importance of their learning barriers as a whole. No significant relationships exist between social desirability scores, biculturalism, and barriers to learning among Indian adult students.

Part V. Reasons for Attending the Center's Adult Education Program

To gain an understanding of the students' motivations for learning, it was necessary to determine the reasons why students were enrolled in the Center's Adult Education Program.

Students were asked to select as many of the 11 stated reasons listed on the questionnaire as were appropriate. Table 25 shows the most frequent reasons for learning by Indian and Anglo adult students. The most frequent reasons for participating in adult education by Indian adult students were (a) to complete a high school/GED level education, earn a degree (91.1%); (b) to prepare for a job (68.9%); (c) to be better informed, gain basic knowledge and skills (64.4%); (d) to fulfill a job requirement, improve or advance in current job (60.0%); (e) to make friends, learn about people, do something new (55.6%); and (f) to achieve personal satisfaction, personal happiness (53.3%).

The most frequent reasons for learning by Anglo adult students were (a) to complete a high school/GED level education, earn a degree (89.7%); (b) to prepare for a job (79.5%); (c) to be better informed, gain basic knowledge and skills (76.9%); (d) to achieve personal satisfaction, personal happiness (71.8%); (e) to improve income (61.5%);

(f) to fulfill a job requirement, improve or advance in current job (59.0%); and (g) to make friends, learn about people, do something new (53.8%).

Table 25.--Frequency of the number of Indian and Anglo adult students who were enrolled Fall semester 1980, by reasons for attending Center's Adult Education Program.

Ethnic Group Reasons for Attending Center's Adult Education Program	Absolute Frequency	Relative Frequency %
<u>Indians (n = 45)</u>		
1. To complete a high school/GED level education, earn a degree	41	91.1
2. To prepare for a job (or new job)	31	68.9
3. To be better informed, gain basic knowledge and skills	29	64.4
4. For a job requirement, improve or advance in current job	27	60.0
5. To make friends, learn about people, do something new	25	55.6
6. For personal satisfaction, personal happiness	24	53.3
7. To improve income	19	42.2
8. To study own culture	17	37.8
9. To deal more effectively with personal or family problems	11	24.4
10. To learn more about how to solve community problems, or to bring change in the community	9	20.0
11. Other reason	7	15.6
<u>Anglos (n = 39)</u>		
1. To complete a high school/GED level education, earn a degree	35	89.7
2. To prepare for a job (or new job)	31	79.5
3. To be better informed, gain basic knowledge and skills	30	76.9
4. For personal satisfaction, personal happiness	28	71.8
5. To improve income	24	61.5
6. For a job requirement, improve or advance in current job	23	59.0
7. To make friends, learn about people, do something new	21	53.8
8. To deal more effectively with personal or family problems	14	35.9
9. To learn more about how to solve community problems, or to bring change in the community	11	28.2
10. To study own culture	8	20.5
11. Other reason	7	17.9

NOTE: Adult students could indicate as many reasons as were applicable.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary purpose of this study was to determine the relationship between biculturalism and barriers to learning among Indian adult students in Grand Rapids, Michigan.

Specifically, the objectives addressed by the research project were as follows:

1. To determine the degree of biculturalism among Michigan Indian adult students.
2. To indicate the degree of importance of barriers to learning for both Indian and Anglo adult students.
3. To examine differences in barriers to learning between Indian and Anglo adult students.
4. To examine the relationship between respondents' ethnicity and degree of importance of barriers to learning as a whole.
5. To determine the degree of importance of factors within each category of learning barriers for both Indian and Anglo adult students.
6. To determine why reported factors are perceived as barriers to learning and to solicit students' ideas for appropriate change.
7. To examine the relationships between biculturalism and barriers to learning.

The final sample comprised 84 adult students. Of the 84 adult students, 45 were Indian adult students and 39 were Anglo adult students. Questionnaires were administered and collected over a period of 10 weeks. The questionnaire was self-administered. In addition, approximately 24% of the sample was contacted for a follow-up interview.

The data were coded, key punched, and processed at the Computer Center at Michigan State University using the Statistical Package for Social Sciences (Nie et al., 1975).

Descriptive and inferential statistics were used in analyzing the data, and the .05 level of probability was adopted to determine significance.

Demographic Characteristics of Sample

The majority of the Indian adult students (62.2%) were female, and more than one-third (37.8%) were male. The "average Indian adult student" was 19.9 years old, had a ninth-grade education, was unemployed, and had an annual family income of \$3,152. The majority of the Indian adult students (82.2%) were single. There were more Indian adult students (64.4%) enrolled part time than were enrolled full time (35.6%).

The majority of the Anglo adult students (56.4%) were women, and less than half (43.6%) were male. The "average Anglo adult student" was 25.2 years old, had a ninth-grade education, was employed, and had an annual family income of \$3,645. The majority of the Anglo adult students (51.3%) were single. Anglo adult students

were fairly equally divided between full-time and part-time enrollment.

Degree of Biculturalism

The biculturalism scores indicated that the Indian adult students were moderately bicultural. This may be explained in terms of the subjects' pattern of historical development. The literature suggests that people who exhibited high scores on the Biculturalism Inventory have had exposure to Anglo and Indian sociocultural systems throughout most of their lives; alternately, people who had low biculturalism scores were reared in one culture and later exposed to a second culture. These patterns are similar to those identified for Mexican American college students (Ramirez et al., 1980).

While previous studies have tended to view minority-group members as being caught between two conflicting cultures (Child, 1943; Madsen, 1964; Stonequist, 1937), this study indicated that Native Americans can and do participate in the mainstream Anglo culture without replacing their Indian lifestyle and values. McFee's (1968) description of the Blackfeet Indians also supports this observation.

Degree of Importance of Barriers to Learning

In terms of the degree of importance of learning barriers, the results of profile analysis indicated that situational, dispositional, and institutional barriers were of equal importance for both Indian and Anglo adult students. The literature on the barriers to learning indicates that the importance of dispositional barriers is

probably underestimated in the surveys because people are reluctant to report barriers such as lack of interest or lack of confidence in their ability (Cross, 1979).

While the data in this study indicated that situational, dispositional, and institutional barriers were of equal importance for both Indian and Anglo adult students, these barriers may not be of particular importance. All means for the learning-barrier categories were below 2.0 for both Indian and Anglo adult students. The low means for these barriers indicated that their importance was rather low, since the range of possible scores was 1 to 5, with low scores indicating "Not a Problem at All" to "Somewhat of a Problem." These barriers may be of less importance to these students for several reasons: These barriers may be affected by the flexible learning environment of the Learning Center, individualized instruction, supportive services such as counseling and child care, and emphasis upon student decision making and responsibility.

Comparisons of barriers to learning revealed significant differences between Indian and Anglo adult students on situational and institutional barriers, with these barriers of greater importance for Indian adult students than for Anglo adult students. No significant difference was noted between Indian and Anglo adult students on dispositional barriers. A comparison between subjects' group membership on degree of barriers to learning indicated a greater degree of importance for learning barriers as a whole for Indian adult students than for Anglo adult students.

Significant differences were noted between specific learning barriers in each category of learning barrier. Repeated-measure analyses of variance comparisons of specific barriers for the situational category indicated that factors of distance from home to Learning Center, lack of time to study, and lack of transportation were of equal importance, and of greater importance than lack of child care for the Indian adult students. The order of importance for child care can be explained by the large number of single Indian adult students who indicated a response choice of "Not a Problem at All." The literature on Indian educational problems suggests that most of the previously mentioned barriers are experienced by Indian adult students (Bass, 1969a; Brod & McQuiston, 1981; Fuchs & Havighurst, 1972; Selinger, 1968). In comparison, all four situational barriers were of equal importance for Anglo adult students. These findings parallel those of other studies reporting similar leading situational barriers of potential learners (Cross, 1979; Hamilton, 1976; Hefferlin et al., 1975; New York State, 1977; Nurnberger, 1974; Stelzer & Banthin, 1975; Wilcox et al., 1975).

The findings on dispositional barriers indicated that, for Indian adult students, the lack of confidence in their ability was of greater importance than poor self-image, lack of interest, and lack of personal desire to learn; also, the latter three barriers were of greater importance than age. These findings support previous studies that indicate that lack of confidence in ability is a problem among Indian students (Bass, 1969b; Fuchs & Havighurst, 1972). The findings also indicated that, for Anglo adult students,

the lack of confidence in their ability was of greater importance than the remainder of the five dispositional barriers previously mentioned. The information on confidence from the interviews suggests a possible explanation for these findings. The information gathered indicates that both Indian and Anglo adult students may find it difficult to gain confidence in their ability without courses that are interesting or without the help and encouragement from teachers to overcome problems with class assignments.

The literature has noted that self-concept is a major factor in determining failure and success in school. Studies indicate that many Indian students have a negative self-concept in comparison to their white peers. However, it has been determined in the present study that the factor of self-image was of equal importance for Indian and Anglo adult students. One possible explanation for this finding is that a few teachers may have expected Indian and Anglo adult students to be inadequate learners because, in part, many had low incomes and limited social mobility, and they were probably viewed as low achievers and pupils who lack the ability to learn. As a result, the students may have performed less well in school and reported less-positive self-image.

It was found that all 12 institutional barriers were of equal importance for both Indian and Anglo adult students. The subjects cited problems with GED tests, lectures, subject content areas, class discussion groups, books, length of time, individualized instruction, class schedule, a place to study, cost, teacher, and location. These and similar barriers were among the several problem

areas cited for Indian school children and adult students in other studies (Brod & McQuiston, 1981; Fuchs & Havighurst, 1972; McKinley et al., 1970; Meriam et al., 1928; U.S. Senate Subcommittee, 1969; Zintz, 1967). The findings in this study also reflect many of the same systemic problems cited in previous research (Carp et al., 1975; Hamilton, 1976; Hefferlin et al., 1975; New York State, 1977; Wilcox et al., 1975) and in related studies concerning the educational needs of the Native American population in Grand Rapids, Michigan (GRITC, 1978; Office of Curriculum, 1979, 1980) and throughout the state (Michigan Department of Education, 1974).

To gain a better understanding of the reported learning barriers, students were asked to rank five of their most important learning barriers and to explain why these barriers were problems in learning. From the interview data, the following barriers were ranked from most to least important by the Indian adult students: (a) class discussion groups, (b) GED tests, (c) lectures, (d) transportation and length of time to complete education, and (e) subjects. It is worth noting here that all except transportation are institutional barriers. These data support the finding that all institutional barriers were of equal importance for Indian adult students. One might speculate that dispositional barriers were not reported by Indian adult students because they were less socially acceptable.

The interview data also offered major reasons for these barriers. Indian adult students reported that they were shy about speaking in front of a group of people, they felt GED tests were difficult, they lacked interest in lectures, they had no available means of

transportation, they had class requirements that extended the length of time to complete their education, and they had subjects that were not interesting.

The most important learning barriers reported by the Anglo adult students, in order of priority, were: (a) books, (b) subjects and GED tests, (c) interest in learning and confidence in one's ability, (d) personal desire to learn, and (e) class schedule and child care.

The major reasons for the most important learning barriers as reported by Anglo adult students were the following: Books were either too easy or too hard, subjects were difficult to comprehend, certain sections of the GED test were difficult, there was lack of interest in academic program, there was lack of self-confidence due to difficulty in courses, there was no personal desire to learn due to family responsibilities and pressure from teachers, the class schedule was inconvenient, and there was a lack of child care.

Correlational Analyses of Survey Variables

To investigate the determinants of learning barriers, correlations were computed between the bicultural variable and barriers to learning variables. Only the institutional barriers variable correlated significantly with biculturalism: The greater the degree of biculturalism of the Indian adult students, the lower the importance of their situational barriers. This finding suggests that biculturalism may be a highly significant asset for the Michigan Indian to succeed in the Michigan school system.

The results of the correlational analyses and one-way analyses of variance, based upon data from the two ethnic groups, identified the variables related to barriers to learning. The correlations indicated that there was a low relationship between time of residence in current home and situational barriers among Indian adult students: The shorter the time of residence in their current home, the greater the degree of importance of their situational barriers. There was also a low relationship between student status and situational barriers, with more full-time Indian adult students indicating a greater degree of importance for situational barriers. It also appeared that age was related to situational barriers among Anglo adult students: The older the Anglo adult students, the greater the importance of situational barriers. One possible explanation for the low relationships is that some of the items included on the questionnaire were not appropriate for analysis, or the wrong questions were asked of subjects in this study.

There was also a rather low relationship between mothers' education and situational barriers among Anglo adult students: The higher their mothers' level of education, the lower the importance of their situational barriers. This may best be explained by their mothers' belief in the value of education and their supportive role in encouraging their children to pursue their own education and to cope with their situational barriers.

The relationship between age and dispositional barriers indicated that older Indian adult students assigned more importance to dispositional barriers than did younger Indian adult students. Older

Indian adult students who had experienced low achievement and feelings of failure in the school system during childhood and adolescence may have reported low self-confidence as a learner, poor self-image, and negative attitudes about learning.

The time of residence in current home was related only slightly to dispositional barriers among Indian adult students. The relationship seems to indicate that Indian adult students who had lived in their current home for a relatively brief period of time attributed more importance to dispositional barriers. It was further revealed that time of residence in Michigan was related to dispositional barriers. This relationship suggests that individuals who had lived in Michigan for a longer period of time indicated a greater degree of importance for their dispositional barriers. A past history of bad experiences in public schools and poor living conditions in the community in which Indian adult students were reared may have affected the degree of importance of their dispositional barriers.

A slight relationship was found between subjects' education and dispositional barriers among Anglo adult students. This finding may reflect an increased awareness of dispositional barriers and their importance to Anglo adult students as they become more educated.

Somewhat low relationships were also noted between fathers' language(s), annual family income, and dispositional barriers among the Anglo adult students: The more English is spoken by Anglo fathers, the greater the importance of dispositional barriers of Anglo adult students. On the other hand, the fathers of the Anglo adult students may have had negative attitudes toward learning and

poor self-perceptions as learners. This may have affected the way in which Anglo adult students perceived their dispositional barriers. The relationship between annual family income and dispositional barriers indicated that higher-income learners reported a greater degree of importance of dispositional barriers. A possible explanation for this finding is that higher-income learners may have more education; consequently, the higher the educational level, the greater their awareness of dispositional barriers.

The data indicated that only the level of education of Indian adult students correlated with the degree of importance of institutional barriers: The higher the level of education, the lower the importance of their institutional barriers. This may be expected since people who have had more experience in organized learning activities are more likely to know where to go for information about educational programs and how to deal with institutional barriers.

The time of residence in current home was related to learning barriers as a whole among Indian adult students. This finding is consistent with other findings in this study, which suggested that the time of residence in current home was related to situational and dispositional barriers. The data indicated that enrollees who are newcomers to the community may be unfamiliar with the program's supportive services (e.g., counseling, transportation for adults attending vocational programs outside the Indian Adult Learning Center, babysitting) that could be used to deal with specific obstacles in learning.

The one-way analyses of variance indicated that significant differences existed between barriers to learning and demographic variables among Anglo adult students. A significant difference was found between location of community in which subject was reared and institutional barriers. It is quite possible that the degree of importance of institutional barriers reported by Anglo adult students may be due to the environment in which they were reared, such as rural, urban, semi-rural, and semi-urban areas. The degree of inaccessibility of educational opportunities and limited experiences in organized learning activities may have contributed to the degree of importance of institutional barriers.

Correlations were also computed between biculturalism and demographic variables. A significant relationship was found between fathers' language(s) and biculturalism: The more English is spoken by the fathers of Indian ancestry, the higher the degree of biculturalism of Indian adult students. If one considers the use of the English language as a criterion for participation in the majority culture, Indian adult students may have been influenced most by the extent to which their fathers spoke English and their fathers' degree of biculturalism. Accordingly, the extent to which Indian adult students spoke English may reflect their degree of biculturalism.

There was also a significant difference between past religion and biculturalism. The reader should be cautious in concluding that past religion affects biculturalism. It is possible that the extent to which the Indian adult students were bicultural might be a function of the environment in which they were reared. Native

Americans who were reared in an urban setting have been exposed to different communities or have associated with people of different cultural backgrounds. On the other hand, Native Americans who were brought up on a reservation have been influenced by their communities and the people they have associated with there. The lack of significant correlations and differences between biculturalism and demographic variables may be attributed to the small sample of Indian adult students.

Social Desirability

An attempt was made to determine whether students gave socially desirable responses to items on the Biculturalism Inventory, the Situational, Dispositional, and Institutional subscales, and the Barriers to Learning Scale as a whole.

The literature has reported that the importance of dispositional barriers is probably underestimated because survey respondents may tend to give socially desirable responses to sensitive topics. Significant relationships were noted between social desirability scores of Anglo adult students and the degree of importance of their dispositional barriers and learning barriers as a whole. Anglo adult students who scored higher on the Marlowe-Crowne Social Desirability Scale reported a greater degree of importance for dispositional barriers and learning barriers as a whole. These findings indicated that dispositional barriers were of equal importance for Anglo adult students.

Reasons for Attending the Center's Adult Education Program

The final question in this investigation entails reasons for attending the Center's Adult Education Program.

The most frequent reasons given for participating in adult education by Indian adult students related to completing a high school/GED level education, gaining basic knowledge and skills, preparing for a job, making friends, and achieving personal satisfaction. These reasons for learning reflect the ideas of a rather young group of Indian adults, many of whom have never held a job.

The most frequent reasons given for attending the Adult Education Program by Anglo adult students included completing high school/GED, preparing for a job, gaining basic knowledge and skills, achieving personal satisfaction, and improving income. High school education and job-related responses that were given by Anglo adult students can be expected, since these students were primarily young, blue-collar workers with less than a high school education.

Conclusions and Recommendations

On the basis of the findings in this study, the following recommendations are made for improving the Adult Education Program at the Grand Rapids Indian Adult Learning Center and for the development of the learning situation of Indian adult students as well as Anglo adult students.

1. It is recommended that the project director, in conjunction with the Office of Curriculum Planning and Evaluation, thoroughly review and enhance the academic components, as well as the cultural

component of the program that are essential to promoting biculturalism, the ability to draw and balance two cultures, which may be a significant asset for adult Indians in coping with institutional and other learning barriers, and in succeeding in the school system.

2. It is recommended that the project director, in conjunction with the Office of Curriculum Planning and Evaluation, continue to address not only the systemic barriers to learning, but the situational and dispositional barriers as well. All three categories of learning barriers were found to be of equal importance for Indian and Anglo adult students.

3. It is recommended that the program management develop strategies to address specific factors, according to their degree of importance within each category of learning barriers. For example, time management could be offered to Indian adult students and other students who may have some problems in effective scheduling. The Executive Director of the Grand Rapids Inter-Tribal Council and project should consider the continuation of a Self-Analysis course and other alternative means for addressing the dispositional barriers such as lack of self-confidence, poor self-image, lack of interest in learning, and lack of personal desire to learn. In addition, the administrative personnel should continue to support the position of the Adult Education Counselor in order to help meet the academic and personal needs of Indian and Anglo adult students. Class discussion groups, lectures, and individualized instruction were listed among the 12 institutional barriers that were of equal importance for both Indian and Anglo adult students. Perhaps one alternative

means of transmitting subject matter would be to tape course lectures and make these available to adult students. Entire courses could be developed on audio cassettes. GED tests or exams were also found to be of equal importance for both Indian and Anglo adult students. A mini-course could be offered to familiarize students with the nature of the contents of the GED test and its general format. Such a course could also deal with students' anxiety about tests.

4. It is recommended that the project director, in conjunction with the Office of Curriculum Planning and Evaluation, identify the needs of new adult students. Indian adult students who have been living in their current home for a shorter length of time reported a greater degree of importance for learning barriers as a whole.

5. It is recommended that the project director and staff continue their efforts to inform incoming Indian and Anglo adult students about the program options and supportive services. Furthermore, staff should continue to contact prospective candidates and continue to encourage their participation in the programs.

6. It is recommended that the project director, in conjunction with the Office of Curriculum Planning and Evaluation, conduct an assessment of the educational needs and interests of older Indian and Anglo adult students. Older Indian adult students assigned more importance to dispositional barriers, and older Anglo adult students designated more importance to situational barriers. The program's

supportive services (e.g., counseling and transportation) should be more sensitive to the needs of older Indian and Anglo adult students.

7. It is recommended that the project director and staff, in conjunction with the Office of Curriculum Planning and Evaluation, thoroughly review the Center's curriculum for the purpose of developing a continuous monitoring system to measure students' progress in the Basic Language Arts Skills Component, Reading and Math Component, Pre-GED Component, and GED Component. In the interviews, both Indian and Anglo adult students indicated that subjects such as math and English were difficult to understand. In addition, some of these students experienced difficulty in certain sections of the GED test.

Implications for Future Research

The following are some possible areas for future research resulting from this study.

1. A replication of this study should be made using a larger sample of Indian and Anglo adult students in another setting in order to further investigate relationships between biculturalism, barriers to learning, and demographic characteristics. The small size of the sample in this study may account for the lack of significant relationships and differences between survey variables and demographic variables.

2. This study might also be replicated for similar learning centers in the United States to determine if the characteristics and factors that contributed to the Indian and Anglo adult students' barriers to learning at the Adult Indian Learning Center are held nationally.

3. Further research should be conducted to identify the characteristics of high and low bicultural individuals among Indian adult students and to determine their extent of learning barriers.

4. There is need for further research to identify the characteristics of the Indian adult students who complete their educational objectives and to determine the factors that contributed to the achievement of these objectives.

5. While this study did not identify historical-development patterns and other factors such as bicognitive orientation among the bicultural individuals, an investigation of these aspects in addition to the biculturalism variable could provide further insight about the development of biculturalism and its role in learning effectiveness among Native Americans and other minority groups.

APPENDICES

APPENDIX A

NATIVE AMERICANS AS A POPULATION OF STUDY

NATIVE AMERICANS AS A POPULATION OF STUDY

Historical Background

There are primarily three Native American tribes in Michigan. They are the Chippewa, Ottawa, and Potawatomi. These tribes stem from the Algonquian stock. This stock is defined as "a family of people who speak an original language or any of the languages and dialects that were derived from it" (Kubiak, 1970, p. 23). The name Algonquian is derived from the word Algomequin, an Algonkin word meaning "people across the river." The expanse of land upon which the Algonquian lived was once considered to be the largest of all areas occupied by a North American stock. Their turf extended from the Rocky Mountains east to Labrador and from the uppermost part of Manitoba south to North Carolina.

Historical records indicate that the Indians of Michigan are descendants of the Ojibwa tribe of Canada. As they moved westward from their settlement on the Atlantic coast north of the St. Lawrence River about 600 years ago, they made stops over an extended period down the St. Lawrence area where Montreal, Canada, now stands, again on Lake Huron, then Sault Ste. Marie, and finally at La Point, Wisconsin. Other settlements at Fon Du Lac and on Lake Superior have also been recorded. The Ojibwa separated into three large groups as they reached Michilimackinac. One group stayed near Michilimackinac and became known as the Ottawas or "traders." The second, the Potawatomi, or "those-who-make-or-keep-a-fire," moved along Lake Michigan. The third division, the Ojibwa (Chippewa) or

"to-roast-till-puckered-up," stopped at Sault Ste. Marie for a long period after the separation. The three groups had so much in common that they banded together to form "the Three Fires" for mutual protection.

The first contact between the White man and a Michigan tribe occurred between Samuel de Champlain and the Ottawas in 1615 on the eastern or northern shores of the Georgian Bay (Kinietz, 1965). The number of contacts between Michigan tribes and Europeans was minimal until after 1660. During this time the Huron, Ottawa, Potawatomi, Chippewa, Miami, and Menominee were the residents of Michigan. At the same time, visiting tribes included the Sioux, Cree, Kickapoo, Fox, and Sauk (Kinietz, 1965).

The Ottawa, Chippewa (Ojibwa), and the Potawatomi comprise the three largest tribes residing in Michigan today (Michigan Commission on Indian Affairs, n.d.). It should be noted that the early Chippewa were called Ojibwa by neighboring tribes. Through the influence of the British and French, they became known as Chippewa (Kubiak, 1970).

In the past, all tribes of Michigan lived in villages and campsites that were usually located on terrain near a river, stream, or lake. The reasons for this are obvious: The waterways served as the main mode of transportation, as well as a good source of food (Kubiak, 1970).

Economic life consisted mainly of hunting, trapping, fishing, and agriculture. The Chippewa depended primarily on hunting, trapping, and fishing activities with large summer villages and small winter hunting camps occupied by extended family units. In contrast,

the Ottawa usually lived in large villages that were moved regularly. Their economic life consisted of agriculture, hunting, and fishing. Men went out from the villages to hunt both in the summer and winter and to trade in the summer as well. Perishable goods were exchanged. The Potawatomi mainly depended on agriculture and hunting in both summer and winter. During the summer they stayed to hunt near the village and returned at night. The winter hunt called for the removal of the entire village to hunt in a new territory as a unit.

Each tribe was usually divided into smaller units or "clans." The clans were usually named after some animal, plant, or bird. The Ottawas, however, were identified by such names as star, water, thunder, and mountain. Clothing was simple; the main articles consisted of moccasins, leggings, breechcloth, and robe.

The first Europeans to encounter and influence the Indians were the French. The Indians soon replaced many of their old weapons, tools, and utensils with items of iron and brass. By the mid-18th century, as the Indians had more exposure to the Europeans, they assimilated even more of the European culture.

Kubiak (1970) reported that there were approximately 25,000 Chippewa in 1764. In 1794, there were 15,000, and by 1951 about 28,000. In 1658, the Potawatomi population was estimated at 3,000. Their population gradually increased to 3,400 by 1820. Kubiak reported no estimates for the Ottawa.

The Contemporary Michigan
Indian and Education

Presently, Michigan's Indian population, according to the Michigan Department of Civil Rights, is estimated at 34,000 (Gorwitz & Rosen, 1979). There are also the five federal reservations: Bay Mills, Hannaville, Keweenaw, Saginaw, and Sault Ste. Marie which have about 5,000 individuals on their rolls.

An estimated 8,000 to 13,000 Indians live in rural areas of the state, including rural areas of the Upper Peninsula and the northern Lower Peninsula. Another 10,000 to 12,000 Indians are concentrated in the Detroit area, and 5,000 to 8,000 in other industrial cities. These statistics indicate that the state's Indians are distributed fairly evenly between urban and rural areas, with about one in ten living on a reservation. The median age is 24.5 years compared to 28.3 years for the general population (Gorwitz & Rosen, 1979).

Many Indians living in cities are not concentrated in one area, but are dispersed throughout the city. Many urban Indians have intermarried and do not consistently identify themselves as Indians. Their background is heterogeneous, varying socially, culturally, and religiously (Gorwitz & Rosen, 1979).

Most published statistics are derived from reservation and rural Indians, and they are easily and consistently identified (Gorwitz & Rosen, 1979). It is, therefore, difficult to determine how many Indians in any area have unmet needs. Thus, this study is focused on

the Indian adults at the Indian Adult Learning Center in Grand Rapids.

As noted earlier, the Grand Rapids Inter-Tribal Council records show that 70 to 75% of the clients in the Council's programs had not completed high school and that many of them had not completed school beyond the seventh grade. Recently, the Adult Education Program found that many of the current participants were experiencing reading difficulties and had no functional use of math. Vocational training of the Indian adult was miniscule. There were only a few Indians with an education beyond high school. While there were many Indian adults with educational needs, very few participated in the city-wide Grand Rapids Adult Education programs (GRITC, 1978).

The unemployment rate for Native Americans is also two and one-half times higher than the overall unemployment rate for the general population in Grand Rapids. The Grand Rapids Inter-Tribal Council records indicate that 86% of the Native Americans served are unemployed. Almost all served (98%) are either at or below the poverty level (GRITC, 1980).

The inequities listed above play a large role in adding to the continuous cycle of inadequate education, unemployment, and poverty among Indians. The dropout rate of 60% from the Grand Rapids Public Schools indicates that the cycle is not being broken (GRITC, 1978).

During the 1977-1978 school year, the Grand Rapids Inter-Tribal Council established the Indian Adult Learning Center to deal with problems that discourage Indian adults from participating in various programs for adults. The Center is continuing to refine and expand

into certain problem areas that have been identified in the first few months of operation (GRITC, 1978).

There are two important areas in dealing with educational and employment problems of Indian adults: participation in the program and culture-fair testing. The Indian Adult Learning Center has designed programs to get the Indian adult population to take advantage of vocational training or complete their GED test. The Center is also concerned with developing better diagnostic and achievement tests sensitive to the Indian population (GRITC, 1978). However, having the programs is not enough. It is also important to know how to best use the programs to better serve the clientele. The inclusion of biculturalism and barriers to learning in this study may provide this type of information.

APPENDIX B

CONSENT FORM

CONSENT FORM

The research assistant from the Learning Center has explained to me the reason for being contacted and the general purposes of the study being conducted. I understand that if I participate in the study I am free to quit participating at any time with no consequences to me. I also understand that the information I give to the research assistant in this study will be treated with strict confidence and that my name will not be used in the findings of the study. If I want to find out about the results of the study, I may ask through the Indian Adult Learning Center GED Program. I understand that this study may not directly benefit me but may help the Program to better plan educational services and further understand students' views on the school situation.

Participant

Date

Research Assistant

Date

APPENDIX C

COVER LETTER AND QUESTIONNAIRE

COVER LETTER AND QUESTIONNAIRE

Dear Student,

I am a graduate student in adult education conducting a research project among adult students. As part of the completion of this project, I need your help in filling out a questionnaire. The information you provide will not only help me, but will also be of help to the Lexington program in improving services provided by the center.

The information you provide will be held in strictest confidence. All answers will be reported in group form. No names will be used in the study. Later, the results of the study will be given to the director of the center for your further information.

I hope you will be able to participate in this project. It would be extremely helpful to me in completing my project. Thank you for your cooperation.

Sincerely,

Samuel Akao
Michigan State University

SA/mjb

Part I

Here are a few questions about you and your family. Please answer these questions as completely as you can.

1. Age _____ 2. Sex: M _____ F _____
3. Ethnic background _____
4. School you now attend (or GED Equivalency Program) _____

5. Student status: _____ full-time _____ part-time
6. What is your present religion, if any? _____
What is your past religion, if any? _____
7. How long have you lived in Michigan? _____
In Grand Rapids? _____
In your current home? _____
8. Where would you consider your permanent home? _____
9. Where did you spend the first 15 years of your life? _____

If more than one place, explain. _____

10. How would you describe the place (city, town, community, reservation) where you were raised?
(a) rural (b) urban (c) semi-rural (d) semi-urban
11. Where was your father born? State _____ Country _____
12. Where was your mother born? State _____ Country _____
13. Is your father still living? Yes _____ No _____
14. Is your mother still living? Yes _____ No _____
15. What language(s) does/did your father speak? _____
16. What language(s) does/did your mother speak? _____
17. What language(s) do you speak? _____

18. What language do/did your parents speak at home? _____
19. What language do you usually speak at home? _____
20. What is the highest grade in school which you completed? _____
21. Parents' education:
 What is the highest grade in school which your father completed? _____
 What is the highest grade in school which your mother completed? _____
22. What is your occupation? _____
23. Father's occupation: (If retired, indicate former occupation)

24. Mother's occupation: (If retired, indicate former occupation)

25. Marital status:
 _____ single
 _____ married
 _____ widowed
 _____ divorced/separated
26. If you are married, what is the ethnic background of your husband/wife? _____
27. What is your approximate total family income last year?
- | | |
|---------------------|-------------------------|
| _____ Under \$3,000 | _____ \$7,500-9,999 |
| _____ \$3,000-4,999 | _____ \$10,000-14,999 |
| _____ \$5,000-5,999 | _____ \$15,000-24,999 |
| _____ \$6,000-7,499 | _____ \$25,000 and over |

Part II

Put a check (✓) in the blank next to the answer which best describes your own background, for each of the following questions.

28. The approximate ethnic composition of the high school I attended was:
- | |
|--|
| _____ 1. All Indians |
| _____ 2. Mostly Indians |
| _____ 3. Indians and Anglos, about equal |
| _____ 4. Mostly Anglos |
| _____ 5. All Anglos |

29. The ethnic composition of the neighborhood in which I grew up was:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos

30. At present, my close friends are:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

31. In elementary school, my close friends were:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

32. In high school, my close friends were:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

33. The ethnic background of the people I have dated is:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

34. The people with whom I have established close and meaningful relationships have been:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

35. When I am with my friends, I attend functions where the people are:
(Check all that apply)

☐ 1. All Indians
☐ 2. Mostly Indians
☐ 3. Indians and Anglos, about equal
☐ 4. Mostly Anglos
☐ 5. All Anglos
☐ 6. Other (specify) _____

36. At most of the functions I attend with my friends, the people are:

☐ 1. All Indians
☐ 2. Mostly Indians
☐ 3. Indians and Anglos, about equal
☐ 4. Mostly Anglos
☐ 5. All Anglos
☐ 6. Other (specify) _____

37. My parents' close friends are:

☐ 1. All Indians
☐ 2. Mostly Indians
☐ 3. Indians and Anglos, about equal
☐ 4. Mostly Anglos
☐ 5. All Anglos
☐ 6. Other (specify) _____

38. When I was a child, my parents taught me about:

☐ 1. Indian history only
☐ 2. Mostly Indian history
☐ 3. Indian history and Anglo history, about equal
☐ 4. Mostly Anglo history
☐ 5. Anglo history only
☐ 6. None of the above

39. In school I learned about:

☐ 1. Indian history only
☐ 2. Mostly Indian history
☐ 3. Indian history and Anglo history, about equal
☐ 4. Mostly Anglo history
☐ 5. Anglo history only
☐ 6. None of the above

40. My childhood friends who visited in my home and related well to my parents were:

☐ 1. All Indians
☐ 2. Mostly Indians
☐ 3. Indians and Anglos, about equal
☐ 4. Mostly Anglos
☐ 5. All Anglos
☐ 6. Other (specify) _____

41. If you work, your close friends at work are:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

42. If you work, the people where you work are:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____
- ☐ 7. Do you work

43. In the service my close friends were:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____
- ☐ 7. Never in the service

44. I enjoy going to gatherings at which the people are: (check all that apply)

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

45. The people who have influenced me in my education have been:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

46. When I study with others, I usually study with:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____
- ☐ 7. Never study with others

47. In the job(s) I have had, my close friends have been:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

48. In your religious training at home, school, church or elsewhere, the people who taught and participated with you were:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

49. As a child, I learned to pray or recite Indian lore in:

- ☐ 1. The native language only
- ☐ 2. Mostly the native language
- ☐ 3. The native language and English, about equal
- ☐ 4. Mostly English
- ☐ 5. English only

50. In junior high or high school, did you participate in any organized athletic and/or recreational activities such as football, cheerleading, etc.?

☐ Yes ☐ No

(a) If yes, list the activities _____

(b) If yes, the other members of the team or activity were:

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

51. Do you now participate in any organized athletic and/or recreational activities? (Bowl with a league, play intramural sports, etc.?)

_____ Yes _____ No

(a) If yes, list the activities _____

(b) If yes, the other members of the team or activity are:

- _____ 1. All Indians
- _____ 2. Mostly Indians
- _____ 3. Indians and Anglos, about equal
- _____ 4. Mostly Anglos
- _____ 5. All Anglos
- _____ 6. Other (specify) _____

52. When I write personal material such as letters, stories, poems, or other such items, I write in:

- _____ 1. The native language only
- _____ 2. Mostly the native language
- _____ 3. The native language and English, about equal
- _____ 4. Mostly English
- _____ 5. English only
- _____ 6. Other (specify) _____

53. When I discuss personal problems or issues, I discuss them with:

- _____ 1. Only Indians
- _____ 2. Mostly Indians
- _____ 3. Indians and Anglos, about equal
- _____ 4. Mostly Anglos
- _____ 5. Only Anglos
- _____ 6. Other (specify) _____

54. When I am involved in group discussions where I am expected to participate, I prefer a group made up of:

- _____ 1. All Indians
- _____ 2. Mostly Indians
- _____ 3. Indians and Anglos, about equal
- _____ 4. Mostly Anglos
- _____ 5. Only Anglos
- _____ 6. Other (specify) _____

55. Who were the people (e.g., teachers, religious workers, employers, co-workers, friends) who influenced you in your life? (Do not include relatives)

- _____ 1. All Indians
- _____ 2. Mostly Indians
- _____ 3. Indians and Anglos, about equal
- _____ 4. Mostly Anglos
- _____ 5. Only Anglos
- _____ 6. Other (specify) _____

56. The teachers and counselors with whom I have had the closest relationships have been?

- ☐ 1. All Indians
- ☐ 2. Mostly Indians
- ☐ 3. Indians and Anglos, about equal
- ☐ 4. Mostly Anglos
- ☐ 5. All Anglos
- ☐ 6. Other (specify) _____

Part III

Put a check (✓) in the blank next to the answer which best describes your participation in your own culture as well as in Anglo culture.

57. How often have you been invited to and/or attended functions which were predominantly Indian in nature?

- ☐ 1. Extensively
- ☐ 2. Frequently
- ☐ 3. Occasionally
- ☐ 4. Seldom
- ☐ 5. Never

58. How often have you been invited to and/or attended functions which were predominantly Anglo in nature?

- ☐ 1. Extensively
- ☐ 2. Frequently
- ☐ 3. Occasionally
- ☐ 4. Seldom
- ☐ 5. Never

59. In the community where you grew up, how often did you participate in the following groups? (Check all that apply):

	<u>Always</u>	<u>Fre-</u> <u>quently</u>	<u>Occasion-</u> <u>ally</u>	<u>Seldom</u>	<u>Never</u>
1. Anglo Americans	☐	☐	☐	☐	☐
2. Mexican Americans (Chicanos)	☐	☐	☐	☐	☐
3. Black Americans	☐	☐	☐	☐	☐
4. Native Americans	☐	☐	☐	☐	☐
5. Asian Americans	☐	☐	☐	☐	☐
6. Latino Americans	☐	☐	☐	☐	☐
7. Filipino Americans	☐	☐	☐	☐	☐
8. Others (specify)	☐	☐	☐	☐	☐

60. How important was it to your parents that you learn to speak English well?
- _____ 1. Very important
 _____ 2. Important
 _____ 3. Slightly important
 _____ 4. Not very important
 _____ 5. Not important at all
61. How important was it to your parents that you learn to speak in the native language well?
- _____ 1. Very important
 _____ 2. Important
 _____ 3. Slightly important
 _____ 4. Not very important
 _____ 5. Not important at all
62. Your parents encouraged you to feel proud of your heritage:
- _____ 1. Always
 _____ 2. Most of the time
 _____ 3. Occasionally
 _____ 4. Seldom
 _____ 5. Never
63. Your parents encouraged you to feel proud that you are an American:
- _____ 1. Always
 _____ 2. Most of the time
 _____ 3. Occasionally
 _____ 4. Seldom
 _____ 5. Never
64. How often do you watch, read, or listen to each of the following when Anglo-oriented programs or materials are provided?

	<u>Very</u> <u>Often</u>	<u>Often</u>	<u>Occasion-</u> <u>ally</u>	<u>Seldom</u>	<u>Never</u>
1. Television	_____	_____	_____	_____	_____
2. Movies	_____	_____	_____	_____	_____
3. Radio	_____	_____	_____	_____	_____
4. Magazines & newspapers	_____	_____	_____	_____	_____
5. Novels/Books	_____	_____	_____	_____	_____
6. Music	_____	_____	_____	_____	_____

65. How often do you watch, read, or listen to each of the following when Indian-oriented programs or materials are provided?

	<u>Very Often</u>	<u>Often</u>	<u>Occasion- ally</u>	<u>Seldom</u>	<u>Never</u>
1. Television	_____	_____	_____	_____	_____
2. Movies	_____	_____	_____	_____	_____
3. Radio	_____	_____	_____	_____	_____
4. Magazines & Newspapers	_____	_____	_____	_____	_____
5. Novels/Books	_____	_____	_____	_____	_____
6. Music	_____	_____	_____	_____	_____

66. About how often do you visit in the homes of Anglos? (Do not include relatives)

_____ 1. Very often
 _____ 2. Often
 _____ 3. Occasionally
 _____ 4. Seldom
 _____ 5. Never

67. About how often do you invite Anglos to your home? (Do not include relatives)

_____ 1. Very often
 _____ 2. Often
 _____ 3. Occasionally
 _____ 4. Seldom
 _____ 5. Never

68. About how often do you visit in the homes of Indians? (Do not include relatives)

_____ 1. Very often
 _____ 2. Often
 _____ 3. Occasionally
 _____ 4. Seldom
 _____ 5. Never

69. About how often do you invite Indians to your home? (Do not include relatives)

_____ 1. Very often
 _____ 2. Often
 _____ 3. Occasionally
 _____ 4. Seldom
 _____ 5. Never

Part IV

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

T = True
F = False

- ___ 70. Before voting I thoroughly investigate the qualifications of all the candidates.
- ___ 71. I never hesitate to go out of my way to help someone in trouble.
- ___ 72. It is sometimes hard for me to go on with my work if I am not encouraged.
- ___ 73. I have never intensely disliked anyone.
- ___ 74. On occasion I have had doubts about my ability to succeed in life.
- ___ 75. I sometimes feel resentful when I don't get my way.
- ___ 76. I am always careful about my manner of dress.
- ___ 77. My table manners at home are as good as when I eat out in a restaurant.
- ___ 78. If I could get into a movie without paying for it and be sure I was not seen, I would probably do it.
- ___ 79. On a few occasions, I have given up doing something because I thought too little of my ability.
- ___ 80. I like to gossip at times.
- ___ 81. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- ___ 82. No matter whom I'm talking to, I'm always a good listener.
- ___ 83. I can remember "playing sick" to get out of something.
- ___ 84. There have been occasions when I took advantage of someone.
- ___ 85. I'm always willing to admit it when I make a mistake.
- ___ 86. I always try to practice what I preach.
- ___ 87. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.

- ☐ 88. I sometimes try to get even, rather than forgive and forget.
- ☐ 89. When I don't know something I don't at all mind admitting it.
- ☐ 90. I am always courteous, even to people who are disagreeable.
- ☐ 91. At times I have really insisted on having things my own way.
- ☐ 92. There have been occasions when I felt like smashing things.
- ☐ 93. I would never think of letting someone else be punished for my wrongdoings.
- ☐ 94. I never resent being asked to return a favor.
- ☐ 95. I have never been irked when people expressed ideas very different from my own.
- ☐ 96. I never make a long trip without checking the safety of my car.
- ☐ 97. There have been times when I was quite jealous of the good fortune of others.
- ☐ 98. I have almost never felt the urge to tell someone off.
- ☐ 99. I am sometimes irritated by people who ask favors of me.
- ☐ 100. I have never felt that I was punished without cause.
- ☐ 101. I sometimes think when people have a misfortune they only got what they deserved.
- ☐ 102. I have never deliberately said something that hurt someone's feelings.
103. What are your reason(s) for attending the Center's GED Program?
(Check as many as apply)
- ☐ 1. To make friends, learn about people, do something new.
- ☐ 2. To complete a high school/GED level education, earn a degree.
- ☐ 3. To be better informed, gain basic knowledge and skills.
- ☐ 4. To study own culture.
- ☐ 5. For personal satisfaction, personal happiness.
- ☐ 6. To deal more effectively with personal or family problems.
- ☐ 7. To learn more about how to solve community problems, or to bring about change in the community.
- ☐ 8. For a job requirement, improve or advance in current job.
- ☐ 9. To improve income.
- ☐ 10. To prepare for a job (or a new job).
- ☐ 11. Other reason (please specify) _____
-

Part VBarriers to Learning Scale

Below are listed some areas which sometimes present problems for students trying to learn. How much of a problem is each of the following for you? (Please circle your response on the scale next to each item.)

EXAMPLE:

Class attendance requirements	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
104. Length of time	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
105. Teacher	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
106. Confidence in one's ability	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
107. Class schedule	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
108. A place to study	1 Not a Problem at All	2 Not much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
109. Lectures	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem

110. Self-image: How you think yourself to be-- appearance, personality, character, etc.	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
111. Distance from home to Learn- ing Center	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
112. GED tests or exams	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
113. Time to study	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
114. Interest in learning	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
115. Subjects (con- tent areas: reading, writ- ing, math, English, etc.)	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
116. Class discussion groups	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
117. Books	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
118. Individualized instruction (in- dividual lessons from teacher, programmed in- struction, etc.)	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem

119. Transportation to and from Learning Center	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
120. Location of Learning Center	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
121. Age	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
122. Personal desire to learn	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
123. Cost (fees, books, sup- plies, trans- portation)	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem
124. Child-care services	1 Not a Problem at All	2 Not Much of a Problem	3 Somewhat of a Problem	4 Rather Important Problem	5 Very Important Problem

APPENDIX D

DATA RECORDING SHEET

DATA RECORDING SHEET

Subject _____

Interviewer _____

Date _____

1. _____
Barrier

Why? _____

How? _____

2. _____
Barrier

Why? _____

How? _____

3. _____
Barrier

Why? _____

How? _____

4.

Barrier

Why? _____

How? _____

5.

Barrier

Why? _____

How? _____

APPENDIX E

CORRECTED ITEM-TOTAL CORRELATION AND RELIABILITY
COEFFICIENTS FOR THE BICULTURALISM INVENTORY

Table A.--Corrected item-total correlation and reliability coefficients for the Biculturalism Inventory.

Scale Item	Corrected Item-Total Correlation	Alpha If Item Deleted
Bicultural Inventory ($\alpha = .60$)		
<u>Type A Items</u>		
Ethnic composition of high school	.30413	.57595
Ethnic composition of neighborhood	.08666	.60037
Close friends	.35893	.55216
Elementary school friends	.09596	.59970
High school friends	.19571	.59038
People with whom I have relationships	.49020	.50356
Parents' close friends	.58039	.50847
Friends related well to parents	.17862	.59095
<u>Type B Items</u>		
Did you participate with Anglos/did you participate with Native Americans	.21121	.58424
Functions predominantly Indian in nature/functions pre- dominantly Anglo in nature	-.16132	.64259
Do you visit the homes of Anglos/do you visit the homes of Indians	.24655	.57836
Do you invite Anglos to your home/do you invite Indians to your home	.47798	.53897

APPENDIX F

CORRECTED ITEM-TOTAL CORRELATION AND RELIABILITY
OF VARIABLES FOR THE THREE SUBSCALES AND THE
BARRIERS TO LEARNING SCALE AS A WHOLE

Table B.--Corrected item-total correlation and reliability of variables for the three subscales and the Barriers to Learning Scale as a whole.

Scale Item	Statistics for Barriers to Learning Subscales		Statistics for Barriers to Learning Scale as a Whole	
	Corrected Item-Total Correlation	Alpha If Item Deleted	Corrected Item-Total Correlation	Alpha If Item Deleted
Barriers to Learning Scale ($\alpha = .81$)				
<u>Situational Barriers</u> ($\alpha = .54$)				
Distance from home to Learning Center	.47030	.33401	.25320	.80988
Time to study	.15152	.62852	.47980	.79726
Transportation	.54275	.24931	.33537	.80533
Child care	.21086	.55501	.37312	.80477
<u>Dispositional Barriers</u> ($\alpha = .70$)				
Confidence in one's ability	.54510	.61784	.43070	.80021
Self-image	.43148	.67225	.37357	.80337
Interest in learning	.47773	.64961	.55165	.79557
Age	.35168	.69596	.40952	.80160
Personal desire to learn	.50954	.63647	.30277	.80689
<u>Institutional Barriers</u> ($\alpha = .75$)				
Length of time	.39461	.73756	.21040	.81136
Teacher	.32585	.74527	.28449	.80745
Class schedule	.43344	.73356	.41868	.80092
A place to study	.21655	.75483	.27901	.80771
Lectures	.40425	.73707	.42569	.80042
GED tests or exams	.34740	.74981	.27917	.81289
Subjects	.55138	.71567	.58079	.79064
Class discussion groups	.48556	.72630	.40898	.80140
Books	.55218	.71659	.55470	.79256
Individualized instruction	.59124	.71718	.46717	.79979
Location of Learning Center	.11298	.76110	.26886	.80808
Cost	.22159	.75419	.16285	.81248

APPENDIX G

DETAILED RESULTS OF THE ANALYSES OF SELECTED DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

DETAILED RESULTS OF THE ANALYSES OF SELECTED DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

Age

The sample in the present study ranged from ages 16 through 49. To analyze these data using chi-square, the sample was divided into five age groups: ages 16-19, ages 20-24, ages 25-29, ages 30-39, and ages 40-49. The results of chi-square analysis by sex were significantly different ($\chi^2 = 11.77595$, $p < .02$).

The percentages indicated that there were more Indian adult students (64.4%) than Anglo adult students (41.0%) between the ages of 16-19 years. There were also more Indian adult students (24.4%) than Anglo adult students (17.9%) between the ages of 20-24 years. However, there were more Anglo adult students (12.8%) than Indian adult students (6.7%) between the ages of 25-29 years, and more Anglos (15.4%) than Indians (4.4%) were in the 30-39 age group. A segment of Anglo adult students (12.8%) were between 40-49 years of age.

The average age of Indian adult students was 19.9. The average age of the Anglo adult students was 25.2. The medians for Indian and Anglo adult students were 18.3 years and 21.0 years, respectively.

Sex

No significant differences were found between Indian and Anglo adult students and sex ($\chi^2 = .10136$, $p < .75$).

Out of the 85 adult students in this study, 54 (61.4%) were women and 34 (38.6%) were men. A percentage breakdown of subjects by sex

indicated that the majority of the Indian adult students (62.2%) were female as compared to slightly more than half of the Anglo adult students (56.4%). In proportion to each ethnic group, males accounted for a larger percentage among the Anglo adult students (43.6%) than among the Indian adult students (37.8%).

Student Status

Students were asked to indicate whether they were enrolled on a full-time basis or a part-time basis during the Fall semester 1980. As a whole, the majority of adult students (56.8%) were enrolled on a part-time basis.

The results of chi-square analysis indicated that ethnic groups did not differ significantly with student status ($\chi^2 = .99692$, $p < .32$).

A closer examination indicated that nearly two-thirds of the Indian adult students (64.4%) were enrolled part-time, and slightly more than one-third (35.6%) were enrolled full-time. Among the Anglo adult students, full-time enrollment (51.3%) and part-time enrollment (48.7%) were fairly evenly divided.

Education

There were no relationships between ethnic background and education levels of subjects ($\chi^2 = .33704$, $p < .56$).

It can be noted that more Indian adult students (88.9%) had completed some high school than Anglo adult students (82.1%). More Anglo adult students (17.9%) had completed less than a high school education than Indian adult students (11.1%).

The mean grade level of Indian adult students was 9.62 compared to 9.59 for Anglo adult students. For both ethnic groups the mode was 9.00. The median values were 9.75 for Indian adult students and 9.69 for Anglo adult students.

Occupation

To examine the occupation variable by ethnic groups, subjects employed outside the home were grouped according to two categories: blue collar and white collar. The white-collar category comprised the following major occupational groups: (a) professional, (b) managerial, (c) clerical, and (d) sales. The major occupational groups that comprised the blue-collar category were craftsmen, operatives, service workers, and laborers (see Table C in Appendix H for a composition of occupations). Both blue-collar and white-collar job classifications are taken from a study on occupations and social status by Reiss, Duncan, Hatt, and North (1961).

Chi-square analysis indicated that the occupation variable was related to ethnicity ($\chi^2 = 12.39840$, $p < .01$).

The data indicated that more Anglo adult students held blue-collar jobs (41.0%) than white-collar jobs (7.7%). On the other hand, Indian adult students were evenly distributed between blue-collar jobs (8.9%) and white-collar jobs (8.9%). The majority of the Indian adult students (57.8%) and about one-third of the Anglo adult students (30.8%) were unemployed or reported none (see Item 25 of the questionnaire).

A detailed listing of parents' occupations is presented in Table D in Appendix I.

Marital Status

The results of chi-square analysis indicated that there were significant differences in marital status by ethnic group ($\chi^2 = 10.17121$, $p < .01$).

The majority of the adult students were single. More of the Indian adult students (82.2%) than Anglo adult students (51.3%) were single. Among those who were married, more Anglo adult students (25.6%) than Indian adult students (4.4%) were married, and more Anglo adult students (20.5%) than Indian adult students (13.3%) were divorced.

Annual Family Income

Because of the small number of cases in each income group and because of the way the intervals were arranged, it would not be very meaningful to collapse the income groups or to analyze these data using chi-square. From the data presented in Table 1, annual family income is seemingly unrelated to ethnic background.

The average annual family income for the Indian group was \$3,152, whereas the average annual family income for the Anglo group was \$3,645. The median on annual family income was \$2,313 for the Indian group and \$3,250 for the Anglo group.

APPENDIX H

FREQUENCY AND PERCENTAGE OF SUBJECTS' OCCUPATIONS
BY ETHNIC GROUP

Table C.--Frequency and percentage of subjects' occupations by ethnic group.

Subject's Occupation	Indians (n=45)		Anglos (n=39)	
	Absolute Frequency	Relative Frequency %	Absolute Frequency	Relative Frequency %
Professional	1	2.2	1	2.6
Managerial			1	2.6
Clerical	3	6.7		
Sales				
Craftsmen			4	10.3
Operatives	1	2.2	3	7.7
Service workers	2	4.4	8	20.5
Private household workers				
Farmers and farm managers				
Farm laborers				
Laborers	1	2.2	1	2.6
Housewife	1	2.2	1	2.6
Mother	3	6.7	3	7.7
Unknown				
Unemployed or none	26	57.8	12	30.8
Multiple occupations			1	2.6
No response	7	15.6	4	10.3

APPENDIX I

FREQUENCY AND PERCENTAGE OF PARENTS' OCCUPATIONS
BY ETHNIC GROUP

Table D.--Frequency and percentage of parents' occupations by ethnic group.

Occupation	Indians (n=45)		Anglos (n=39)	
	Absolute Frequency	Relative Frequency %	Absolute Frequency	Relative Frequency %
Father's Occupation				
Professional	1	2.2	1	2.6
Managerial	2	4.4	3	7.7
Clerical				
Sales				
Craftsmen	8	17.8	5	12.8
Operatives	3	6.7	15	38.5
Service workers	3	6.7	3	7.7
Private household workers				
Farmers and farm managers	1	2.2		
Farm laborers	1	2.2		
Laborers	9	20.0	3	7.7
Housewife				
Unknown	5	11.1	4	10.3
Unemployed or none	2	4.4	2	5.1
No response	10	22.0	3	7.7

Table D.--Continued.

Occupation	Indians (n=45)		Anglos (n=39)	
	Absolute Frequency	Relative Frequency %	Absolute Frequency	Relative Frequency %
Mother's Occupation				
Professional	2	4.4	2	5.1
Managerial			2	5.1
Clerical	1	2.2	1	2.6
Sales			1	2.6
Craftsmen	1	2.2		
Operatives	6	13.3	8	20.5
Service workers	8	17.8	4	10.3
Private household workers	1	2.2		
Farmers and farm managers				
Farm laborers				
Laborers	2	4.4		
Housewife	13	28.9	12	30.8
Unknown	2	4.4	1	2.6
Unemployed or none	4	8.9	6	15.4
No response	5	11.1	2	5.1

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