### University of Montana

# ScholarWorks at University of Montana

Graduate Student Theses, Dissertations, & Professional Papers

**Graduate School** 

1971

# An exploratory study of the correlation of cultural and environmental factors to learning progress in adult basic education

Quentin Richard Schwartz
The University of Montana

Follow this and additional works at: https://scholarworks.umt.edu/etd

# Let us know how access to this document benefits you.

#### **Recommended Citation**

Schwartz, Quentin Richard, "An exploratory study of the correlation of cultural and environmental factors to learning progress in adult basic education" (1971). *Graduate Student Theses, Dissertations, & Professional Papers.* 7666.

https://scholarworks.umt.edu/etd/7666

This Thesis is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Graduate Student Theses, Dissertations, & Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact <a href="mailto:scholarworks@mso.umt.edu">scholarworks@mso.umt.edu</a>.

# AN EXPLORATORY STUDY OF THE CORRELATION OF CULTURAL AND ENVIRONMENTAL FACTORS TO LEARNING PROGRESS IN ADULT BASIC EDUCATION

bу

Quentin R. Schwartz

- B. A. Drew University, 1953
- B. D. Drew University, 1958

Presented in partial fulfillment of the requirements for the degree of

Master of Arts

UNIVERSITY OF MONTANA

1971

Approved by:

Chairman, Board of Examiners

Dean, Graduate School

Date

UMI Number: EP38467

#### All rights reserved

#### **INFORMATION TO ALL USERS**

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



#### **UMI EP38467**

Published by ProQuest LLC (2013). Copyright in the Dissertation held by the Author.

Microform Edition © ProQuest LLC.
All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code



ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

# TABLE OF CONTENTS

	F	age
LIST O	TABLES	iv
Chapte	^	
I.	INTRODUCTION	1
	Historical Development	2
	Purpose of the Study	5
	Statement of the Problem	5
	Assumptions	6
	Delimitations	6
	Limitations	6
	Definition of Terms	7
II.	REVIEW OF LITERATURE	9
	Culture and Learning	9
	Adult Learning	20
	Summary	22
III.	METHODS AND PROCEDURES	24
	The Population	24
	The Instruments	24
	The Survey Procedures	25
	Treatment of Data	26
IV.	FINDINGS	27
	Demographic Information of Cultural Survey	27
	Identification Characteristics	27
	Reservation Characteristics	30
	Social-Political Characteristics	33

Chapter	Page
	Educational Characteristics
	Family Characteristics
	Economic-Employment Characteristics
	Personal Preference and Practice Characteristics 56
	Learning Progress Results
	Profiles of Particular Students
	Low-Scoring Indian Students
	High-Scoring Indian Students 69
	Low-Scoring Non-Indian Students
	High-Scoring Non-Indian Students
	Curriculum Overview
y. su	MMARY, CONCLUSIONS, AND RECOMMENDATIONS
	Summary
	Conclusions
	Recommendations
BIBLIOGRAP	HY
APPENDIX A	Follett Adult Basic Education Student Survey Scoring Chart
APPENDIX B	. Pre-Test Scores of Adult Basic Education Students 90
APPENDIX C	. Post-Test Scores of Adult Basic Education Students 91
APPENDIX D	. Gain-Loss Results of Pre-Test/Post-Test Scores of Adult Basic Education Students
APPENDIX E	. Questionnaire Analysis Categories
APPENDIX F	. Questionnaire
APPENDIX G	. Mann-Whitney U Test for Statistical Analysis 100

# LIST OF TABLES

TABLE		PAGE
1.	Sex, Age, Marital Status, and Birthplace Distribution of	
	ABE Students	29
2.	Indian Tribes Represented by Parental Heritage of ABE Students	30
3.	Indian Student Participation in Ceremonial Dances and Games .	31
4.	Reservation Life of Indian ABE Students During Three Life	
	Periods	32
5.	Distribution of ABE Students According to Political Party and	
	1968 Presidential Candidates	33
6.	Distribution of ABE Students According to Religious Prefer-	
	ence and Frequency of Church Attendance	34
7.	Distribution of ABE Students According to Last Grade Attended	
	in Formal School and Grade Repeated	36
8.	Reasons for Enrolling in ABE Class	38
9.	Factors Affecting Termination of ABE Instruction	39
10.	Expressed Importance for Further Education	40
11.	Preference of Reading Materials of ABE Students	41
12.	Preference of Class Subjects of ABE Students	42
13.	Responses to Questions Concerning Language Instruction $\dots$	43
14.	Desire of ABE Students to Attend Institutions of Higher	
	Learning	44
15.	Age ABE Students Left Home	45
16.	Distribution of Home Characteristics of ABE Students: Running	
	Water, Electricity, and Telephone and Number of Persons,	
	Number of Rooms, and Construction Type	47

ABLE	PAGE	
17.	Responses of ABE Students to Questions of Car and Television	
	Ownership	
18.	Responses of ABE Students to Questions of Employment 51	
19.	Type of Employment of ABE Students and Their Parents 53	
20.	Highest Weekly Income of ABE Students	
21.	Frequency of Visitations to Doctor and Dentist by ABE Students 56	
22.	Music Preferences of ABE Students	
23.	Hours Spent Radio Listening and Television Viewing and	
	Favorite Television Program Types of ABE Students 59	
24.	Use of Alcohol and Tobacco Among ABE Students 60	
25.	Favorite Sports of ABE Students 61	
26.	Preference of Counsel for Personal Problems of ABE Students . 62	
27.	Favorite Foods and Eating Practices of ABE Students 64	
28.	Mean Scores from Follett ABE Student Survey Measuring Learning	
	Progress in Grade Level Gains	
29	Association of Age to Grade Increase 67	

#### CHAPTER I

#### INTRODUCTION

Adult Basic Education (ABE) has become an important facet of the education structures of our nation in recent years. Leaders in industry, government, and education have become aware of the importance of a basic education equivalent to 8th grade attainment for those adults in that group of citizens classified as part of the disadvantaged population.

Such persons can be considered socially disadvantaged because society has tolerated attitudes, social practices, and legal barriers which have restricted their access to equal opportunity competition and to possible full self-realization commensurate with their abilities.

Congress has responded to the needs of these disadvantaged, undereducated people by providing funds and iniative for specific educational programs. These programs are designed to improve the basic skills of the educationally disadvantaged in preparation for job entry and retraining. The goal is to make these adults more profitable to employ, and help them ". . . become more productive and responsible citizens." More specifically, Adult Basic Education is designed to provide the undereducated adult with the basic skills needed for entry into and survival in the world of work, in the decision-making experiences in the marketplace, the voting booth, and the home. The design includes

<sup>1</sup>Steten W. Webster. <u>The Disadvantaged Learner: Knowing, Understanding</u>, <u>Educating</u>. San Francisco: Chandler Publishing Co. 1966, p. xi.

<sup>&</sup>lt;sup>2</sup>U. S. Government Printing Office. <u>The Second Annual Report of the National Advisory Committee on American Basic Education</u>. House Document No. 91-176. 91st Congress, First Session. Washington, D. C. 1969, p. 1.

such basic learning tools as reading, writing, arithmetic, and an improved sense of personal dignity and worth.<sup>3</sup>

# <u>Historical</u> <u>Development</u>

The initiative for a program of Adult Basic Education began when Congress passed the Economic Opportunity Act of 1964. However, the State Department of Education of Montana was authorized to approve projects for ABE by the local school districts under the Adult Education Act of 1966.

Although Adult Basic Education was authorized and begun in Montana in 1967, the Missoula program, which was the focus of this study, was not initiated until January 1968. The first year the program had about 30 students enrolled in two, part-time classes—one a day class, and one a night class. The primary goal of the classes was to prepare the adult students for citizenship and the General Education Development Test.

The first, full-time class in Adult Basic Education in Missoula was held during the academic school year, 1968-1969. The class was operated on a continuous enrollment, "open-door" policy, admitting any person at any time with a desire to learn and with the mental and physical abilities to function in the classroom. This policy is still in effect today. The teaching function that year stressed the basic coping skills, emphasizing social interaction and practical education.

<sup>3</sup>Cincinnati Public Schools. Adult Learning Laboratories in Adult Basic Education: For Use Without School Youth and Adults in Continuing Education Classes. Ohio. 1970.

The following school year, 1969-1970, the class moved to its present location in the Missoula Technical Center Building, a significant event since the influence of the Technical Center's particular student body and regulations initiated new strategies in the ABE program. It became more individualized in instruction, allowing the students to be more responsible for their own learning. The enrollment that year was 184 students, 22 percent of the total enrollment in Montana of 846 students.

The ABE class population profile has changed from year to year, even month to month, due to continuous enrollment and terminations. Predictably, one constant factor has been the undereducated, disadvantaged, or handicapped characteristic of each student. The ethnic and cultural characteristics of the class have been diverse. At times the class included Spanish-Americans, Indian-Americans, Afro-Americans, and White-Americans; at other times the primary composition has been White-American. Since this cultural variance existed in the Missoula ABE class, a study of the relationship of cultural and environmental background factors to the learning progress of the students, was in order. Further suggestion came from the statements of men like Powers, 6 Zintz, 7

<sup>&</sup>lt;sup>4</sup>Personal interview with Mrs. Sue Mielke, the head teacher of the ABE class at the Missoula Technical Center. March 16, 1971.

<sup>&</sup>lt;sup>5</sup>U. S. Department of Health, Education, and Welfare. Office of Education. Adult Basic Education Program Statistics: Students and Staff Data. July 1, 1968 - June 30, 1969. Published, 1970. p. 5.

<sup>&</sup>lt;sup>6</sup>Joseph F. Powers. <u>Brotherhood Through Education</u>: <u>A Guide for Teachers of American Indians</u>. Fayette, Iowa: Upper Iowa University. p. 15-17.

<sup>&</sup>lt;sup>7</sup>Miles V. Zintz. <u>Education Across Cultures</u>. 2nd edition. Dubuque, Iowa: Kendall-Hunt Publishing Company. 1969, p. 100.

and  ${\sf Riessman}^8$  who agreed that culture is influential in the learning process.

Brown<sup>9</sup> claimed the existence of a truism in education that educators must begin where the student is academically, but beginning where the student is applies to cultural experiences and values as well as academic skills. Robert A. Roessel, Jr.<sup>10</sup> writing about Indian education, maintained that to understand individual behavior and to formulate desirable goals for education, the educator must seek to understand the culture in which the students function.

This exploratory study was undertaken as an attempt to apply Roessel's principle to the specific arena of one adult basic education population and to relate the results to student learning progress. To date, an exploratory study of the cultural and environmental backgrounds of ABE students has not been attempted in Missoula or elsewhere in Montana.

<sup>&</sup>lt;sup>8</sup>Frank Riessman. <u>The Culturally Deprived Child</u>. New York: Harper and Row, Publishers. 1962, p. 4-8.

<sup>9</sup>Don A. Brown and Anabel P. Newmann. A Literacy Program for Adult City-Core Illiterates: An Investigation of Experimental Factors
Pertinent to Reading Instruction. U. S. Department of Health, Education, and Welfare. Office of Education. October, 1968. p.2

<sup>&</sup>lt;sup>10</sup>Robert A. Roessel, Jr. <u>Handbook for Indian Education</u>. American Indian Publishing Company, 1826 North Sierra Bonita, Los Angeles, California 90046. p. 43.

# Purpose of the Study

The purpose of this study was to explore the cultural and environmental backgrounds of the ABE target population and identify correlations between the cultural and environmental background factors and the
gain or loss in the learning progress of the adult students. The study
also attempts to determine relationships between the above correlations
and the Adult Basic Education Curriculum.

### Statement of the Problem

Adult Basic Education seeks to enable students who are handicapped physically, emotionally, educationally, mentally, or socially to learn coping skills that will increase their ability to function as individuals in our complex society. ABE students have varied and mixed cultural and ethnic backgrounds which are not consistent with the cultural assumptions and values of the ABE curriculum and instructors. Since little research has been attempted in the area of Adult Basic Education in Montana, yet new program proposals are being developed for government funding, this study attempts to survey the cultural and environmental background of the ABE students in Missoula who are actively attending ABE classes and explore possible correlations between those cultural and environmental factors and the students' learning progress. This study also attempts to document student desires, needs, interests, heretofore unknown, as helpful guides to future curriculum development. The specific characteristics of the ABE population surveyed are relevant to the cultural differences and similarities between Indian students and non-Indian students in the ABE class at Missoula, Montana.

The null hypothesis is that different cultural and environmental background factors were not sufficiently influential upon learning to produce significant differences in achievement between Indian and non-Indian students in the ABE class at Missoula, Montana.

# Assumptions

- The instruments will measure that which they are purported to measure.
- 2. The students will respond honestly and sincerely to the questionnaire and inquiry pertinent to the study.

## <u>Delimitations</u>

- 1. This study is limited to those students enrolled in the ABE class in Missoula during the month of March, 1971.
- The survey of cultural and environmental backgrounds of the enrolled students is limited to the questionnaire prepared for this study.
- 3. The achievement rate was recorded from the comparative results of the ABE Student Survey Forms A and B, published by the Follett Publishing Company.<sup>9</sup>

#### Limitations

 Responses to questionnaire items may be interpreted differently by different persons, particularly in

 <sup>9</sup>Adult Basic Education Student Survey. Chicago, Illinois:
 Follett Publishing Company. 1966. Numbers 2011, 2012, 2018, 2019, 2022.

view of the fact that some persons in the target population were functionally illiterate. Despite efforts to cover the field of cultural and environmental background factors, some areas may be neglected or inadequately measured.

- The researcher may affect inferences drawn in this study.
- 3. Not all variables related to cultural and environmental background and the learning (gain or loss of) progress have been identified and measured.

## Definition of Terms

For the purpose of this study, the terms listed below were defined as follows:

Adult Basic Education (ABE): Education for adults with less than a functional eighth grade education in the basic literacy skills of reading, writing, and arithmetic designed to help eliminate the inability of the adults to get or retain employment commensurate with their real ability, to improve their ability, to benefit from occupational training, and generally increase their opportunities to meet adult responsibilities and challenges.

Adult Basic Education Student: There is no definition of the ABE student in mass; however, it is generally said that most ABE students have some of these characteristics: lack of self-confidence; fear of school; living in conditions of economic poverty; culturally deprived; possibly below average

in scholastic aptitude; values, attitudes, and goals differing from upper and middle class norms; weak motivation; feeling of helplessness; varying levels of intelligence; hostility toward authority; "live for today" philosophy; reticence; need for status; use of defense mechanisms; tendency to lose interest; and less than eighth grade equivalency. 10

<u>Culture</u>: Acquired, not inherited, interrelated ways of thinking, feeling, and acting transmitted from generation to generation. Social inheritance defines and limits general patterns to which individual behaviors conform.

<u>Indian</u>: Any adult student who indicated his American-Indian heritage either through one or both parents.

Non-Indian: Refers to any person not classified as Indian for the study.

<u>Cultural Factors</u>: Those interlocking elements in a person's life, such as, desires, attitudes, values, status, language, and tradition, which compose his way of life and world view.

<u>Environmental Factors</u>: Those surrounding conditions of life, including technology, social, and economic structures and residence patterns to which an individual responds.

<sup>10</sup> National Association for Public School Adult Education. Adult Basic Education: A Guide for Teacher Trainers. National Education Association. Washington, D. C.: 1966. p. II-4 - II-14.

#### CHAPTER II

#### REVIEW OF LITERATURE

# Culture and Learning

Often there are discrepancies between what educators intend should be taught, what is actually taught, and what an individual learns. Such discrepancies occur in most formal learning environments. In crosscultural and integrated sub-cultural learning circumstances, these discrepancies are exaggerated due to cultural ignorance and misunderstandings. Today, the rapid rate of change in the world in economic, political, social, cultural, and technological areas also serve to increase such differences. Social tensions are created or increased in terms of the gap Spindler mentions, between what a person believes to be his cultural values, knowledge, traditions and attitudes, and those he practices. The result could be social dysphoria.

Riessman maintained there is a difference between the environment of a group and its culture. The environment generally consists of the conditions of life, while the culture includes the methods that have evolved for coping with those conditions. Culture, therefore, includes not only the traditions, values and mores, but also the institutions and methods of organization of any specific group.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup>George D. Spindler. <u>Education and Anthropology</u>. Stanford, California: Stanford University Press. 1955. p. 95-96.

<sup>&</sup>lt;sup>2</sup>Frank Riessman. <u>The Culturally Deprived Child</u>. New York: Harper and Row. p. 6; see also Steten W. Webster. <u>The Disadvantaged Learner</u>: <u>Knowing</u>, <u>Understanding</u>, <u>Educating</u>. San Francisco: Chandler Publishing Co. 1966, p. 3.

According to Kimball, the culture imposes many requirements on the individual through the school, the church, and the family. Presently, these requirements include such values as commitment to change ("keeping up with the times"), self-fulfillment, and perpetual optimism. Kimball believed that these values lead to frustration in the individual; for, when seen in reality, the expectations are too high. The response each person makes to the various pressures within the society, while trying to achieve these values of the culture, determine socially and psychologically what Frank defines as personality. For Frank, the image of one's self in relation to the world of events and people necessitating his response was called enculturation.

Bateson called the process involved in such behavioral interaction schismogenesis or the progressive or directional change between the individual and others, as the behavior of the first person affects the interpretation and response of the second person. The second person's behavior will, in turn, produce further change in the response of the first person. Bateson tried to develop a better understanding of the place of thought and emotion in these behavioral responses.<sup>6</sup>

<sup>&</sup>lt;sup>3</sup>Solon T. Kimball. "Cultural Influences Shaping the Role of the Child," Education and Culture. George D. Spindler. (ed.). 1963. p. 275

<sup>&</sup>lt;sup>4</sup>Ibid. p. 276.

<sup>&</sup>lt;sup>5</sup>Lawrence K. Frank. "Some Notions on Learning Intercultural Understanding," <u>Education</u> and <u>Anthropology</u>. George D. Spindler. (ed.). 1955. p. 113.

<sup>&</sup>lt;sup>6</sup>Gregory Bateson. <u>Navan</u>. Stanford, California: Stanford University Press. 1958. p. 286.

In a more simplified approach, Postman and Weingartner also sought understanding of these responses. They addressed themselves to an analysis of studies on perception. These efforts point to the concept that the perceiver decides what he hears, sees, and senses according to his own needs, values, and previous experiences. Two persons communicate best, that is, have a meeting of meanings, when they have similar purposes, assumptions, or experiences. The final meaning of a perception is how it causes the person (perceiver) to act. Thus, the value these observations have regarding the learning process is that a person learns when he has ". . . the ability to relinquish inappropriate perceptions and to develop new and more workable ones." Consequently, in a learning process such as in an ABE class, the chances of similar perceptions and meanings between the teacher and the student are considerably reduced when the teacher is ignorant or biased as to the student's cultural and environmental background.

The students of Adult Basic Education classes are primarily those adults in the lower socio-economic class of the American society. They are often the persons of minority subcultures, including various ethnic and racial groups, the poor, the disadvantaged, and the culturally deprived, since such persons comprise a large segment of the undereducated adults in this country.<sup>8</sup>

<sup>&</sup>lt;sup>7</sup>Neil Postman and Charles Weingartner. <u>Teaching as a Subversive Activity</u>. New York: Delacorte Press. 1969. p. 90.

Robert J. Havighurst. "Who are the Socially Disadvantaged?"
Steten W. Webster. The Disadvantaged Learner: Knowing, Understanding, Educating. 1966. pp. 26-27

Powers, 9 Bryde, 10 Roessel, 11 and others maintained that the cultural differences between the Indian and the non-Indian student are determining factors in classroom performance. Powers stated that:

To say that one's culture is the dominating force of his life would be an understatement. The importance of culture to the group life of a people cannot be overestimated, for it is the culture which imparts meaning and purpose to existence. Culture is the phenomenon which distinguishes one group from another and serves to identify individuals as members of a particular group . . . it is culture that determines what we 'see' when we look at the same thing. Culture supplies the 'lens' with which we view the world.

Bryde<sup>13</sup> and Roessel<sup>14</sup> and others were more specific in stating that one of the most influential differences affecting learning is the area of cultural values. Traditional Indian values include the following: orientation to the present, emphasizing a live-life-now approach (as opposed to the non-Indian future-oriented value); a lack of time consciousness (as opposed to a closely scheduled organization); an emphasis

<sup>&</sup>lt;sup>9</sup>Joseph F. Powers. <u>Brotherhood Through Education: A Guide for Teachers of American Indians</u>. Fayette, Iowa: Upper Iowa University. p. 15

<sup>&</sup>lt;sup>10</sup>John F. Bryde. "A Rationale for Indian Education." <u>Journal of</u> American Indian Education, 8:11-14. 1969. p.8

<sup>11</sup>Robert A. Roessel, Jr. <u>Handbook for Indian Education</u>. American Indian Publishing Company, 1826 North Sierra Bonita, Los Angeles, California 90046. pp. 30-31.

<sup>&</sup>lt;sup>12</sup>Powers, op, cit. p. 15.

<sup>13</sup> Bryde, op. cit. p. 8.

<sup>14</sup>Roessel, op. cit. pp. 30-31.

on sharing, giving, cooperation, importance of the group (as opposed to the saving, acquiring, competing, importance of the individual values of the non-Indian society); finally, the Indian respect for age and harmony with nature (as opposed to the non-Indian emphasis on youth and the conquering, domination of nature). These differences in values lead the student to perceive classroom and other learning experiences from differing perspectives, often in conflict with the perspectives of the teacher. Inasmuch as the teachers are mostly middle class and are supported by an educational system promoting middle-class values, the Indian student is under pressure to conform, thus compromising his values, suppressing them or being in open conflict in the learning situation. The amount of exposure the reservation Indian has to the dominant society is thus important in understanding his approach to learning. 16

The degree of conflict due to differing cultural factors has been established as directly related to the extent of acculturation of the Indian adult student. Saslow dealt with the issue through the concept of the strength of the individual's motivations toward or away from reservation life. In personal communication with Roessel, Saslow noted

<sup>&</sup>lt;sup>15</sup>Ronald Allen. "A Study of the Characteristics of Successful and Unsuccessful Students Enrolled in the Adult Indian Training Program Conducted by the Adult Education Center of the University of Montana." (Unpublished Doctor's dissertation, University of Montana, 1968). p. 51; see also Miles V. Zintz. Education Across Cultures. 2nd edition. Dubuque, Iowa: Kendall-Hunt Publishing Company. 1969. p. 200-202.

<sup>&</sup>lt;sup>16</sup>Zintz, op. cit. p. 63.

that students with a high level of traditionalism or acculturation achieved at the highest level at school. The low achievers were culturally confused. They lacked the important elements in academic achievement, such as positive self-image, industry, and self-control. 17

Havighurst concluded that:

...American Indians of today have about the same innate equipment for learning as have the white children of America. But in those Indian tribes which have preserved their traditional cultures to some extent, there is a limited motivation of children for a high level of performance in schools and colleges. 18

...the Indian who is subjected to white education becomes a man of two cultures. Generally the individual makes his own combination of the two by adapting such white 'ways' as are useful and pleasant to him...<sup>19</sup>

Spindler, in discussion of Indian personality types and their sociocultural roots, wrote:

Acculturation processes among American Indians do not necessarily eventuate in the emergence of middle-class American personalities or culture patterns, even when they run full course. Acculturative adaptation may occur to a middle-class standard, a laboring class pattern, or move in the direction of the cultural norms and values of variant local sub-groups with whom Indians come in contact. Therefore, acculturated psychological types are not all the same. 20

<sup>17</sup>Harry L. Saslow and May J. Harnover. "Research on Psychosocial Adjustment of Indian Youth." American Journal of Psychiatry. 125(2): 224-231. 1968. p. 229.

<sup>18</sup>Robert J. Havighurst. "Education Among the American Indians: Individual and Cultural Aspects." The Annals of the American Academy of Political and Social Science. May, 1957. No. 311. p. 107.

<sup>&</sup>lt;sup>19</sup>Ibid. p. 113.

<sup>20</sup>Louise S. Spindler and George D. "American Indian Personality Types and Their Sociocultural Roots." The Annals of the American Academy of Political and Social Science. May, 1957. No. 311. p. 156.

Vogt agreed with this acculturational diversity with his term "Pan-Indianism."

The significance of this Pan-Indianism in general terms is that it provides a social and cultural framework within which acculturating Indian groups can maintain their sense of identity and integrity as Indians as long as the dominant larger society assigns them to subordinate status.<sup>21</sup>

Allen found that the differences in particular tribal cultures as well as acculturation, influenced members of some Montana tribes who were more successful in an adult Indian training program than were members of other reservations. The difference in success, however, was not at a significant level of confidence. The Blackfeet and Crow tribes were most successful, while the Flathead reservation tribes were fourth out of the seven reservations represented in the study.<sup>22</sup>

Berven found that the Flathead tribe had arrived at a greater degree of acculturation than many tribes, due to a history of integration with the non-Indian society. Thus, the Indian students in public schools on that reservation were found to compete satisfactorily in the academic area with the non-Indian students. However, Brockman maintained there was pressure on the Flathead Indian students to drop out of school; a pressure found primarily in the form of subtle social discrimination by middle-class

<sup>21</sup> Evon Z. Vogt. "The Acculturation of American Indians." The Annals of the American Academy of Political and Social Science. May, 1957. No. 311. p. 146.

<sup>&</sup>lt;sup>22</sup>Allen. op. cit. p. 88.

<sup>23</sup>Irene Berven. "History of Indian Education on the Flathead Reservation." (Unpublished Master's Thesis, Montana State University, 1959) pp. 65, 79, 80.

teachers and students, regardless of Indian or non-Indian heritage. The discrimination was toward persons of lower socio-economic backgrounds who did not reflect the Euro-American educational values of the school system. 24

The complexity of cultural influence in the learning process was evident when considering the similarities of the Indian and the non-Indian disadvantaged students. As Harrington made clear, the different attitudes, values, and feelings of the lower social class has produced a unique culture. This culture of poverty gives the disadvantaged people, including the minority groups, a world view quite unlike the middle class majority. And, although influenced by racial or ethnic identification, this culture of poverty manifests an interrelatedness among the various subcultures in our society. 25

Lyndes, in a survey of Missoula elementary school dropouts in 1959, found that the lower social class students made up the largest number of student failures at that level of schooling. <sup>26</sup> This data is relevant, inasmuch, as the student dropouts at the time of Lyndes' study would be the same age as the adult students in the ABE classes today.

<sup>&</sup>lt;sup>24</sup>C. Thomas Brockmann. "Social Class and Educational Level on the Flathead Reservation." <u>Journal of American Indian Education</u>, 10:12-31, October, 1970. pp. 29-30.

<sup>&</sup>lt;sup>25</sup>Michael Harrington. <u>The Other America</u>. Baltimore, Maryland: Penguin Books, Inc. 1962. pp. 156-157.

<sup>26</sup> Julia O. Lyndes. A Study of the Social-Class Backgrounds of Failing Students in Elementary Schools. Professional Paper for Master Education Missoula, Montana. 1959.

Dutton found that the greater the cultural disadvantage, the greater the feelings of alienation and thus the more likely the student would drop out of any ABE program with suspicions of the educational programs sponsored by middle-class educators. Dutton concluded that:

Although most studies indicate that undereducated adults are all alike (the anti's, have-not's, will-not's, etc.), this study suggests that there are considerable differences within a group as a whole.<sup>27</sup>

Recognizing individual differences within the culturally deprived population, the deficiencies of educational skills and experiences for adequate learning is a common problem. Ehrbright, working with the Upward Bound population in Missoula, found a significant difference at the .01 level of confidence, in favor of the non-Indian in the areas of language and qualitative skills, reading vocabulary and paragraph comprehension, total personal problems, and the indicated I.Q. The Indian students, however, scored higher in personality adjustment. There was no significant difference between the Indian students and the non-Indian students for social adjustment. Ehrbright's summary of the factors causing underachievement in his study were:

- 1. Inadequate pre-school experiences
- 2. Less than ideal middle-class family structure
- 3. Deep personal trauma
- 4. Positional social control in the home

<sup>&</sup>lt;sup>27</sup>Marion Donnie Dutton. "A Description and Analysis of Selected Characteristics of Participants in Adult Basic Education in Hillsbo**roug**h County, Florida." (Unpublished Doctor's dissertation, Florida State University, 1967) p. 130.

- 5. Low self-concept reinforcement
- 6. Anti-intellectual values toward education, but above all, financial impoverishment, the poverty cycle. 28

Allen's study of the characteristics of successful and unsuccessful adult Indian students enrolled in the adult Indian training program conducted by the University of Montana revealed that, although in general, culture is important in the learning process, when reduced to specific characteristics, there was no significant difference between the successful and unsuccessful adult students with respect to age, marital status, sex, blood quantum, home reservation, grade completed, and the results of achievement, reading, and aptitude tests.<sup>29</sup>

Dutton stated that ABE students "... with high degree of alienation, as measured by Dean's scale ... are more likely to be suspicious of middle-class people and their motives for trying to initiate change."30 He also found that those persons in his population more highly alienated were Afro-Americans, persons with low incomes, persons more isolated in social relationships and exhibiting high absenteeism students placed in the lower grade levels of four through six. Each of these areas was related to the cultural and environmental background of the adult student, although Dutton did not make that connection directly. The fact that

<sup>&</sup>lt;sup>28</sup>Richard M. Ehrbright. "A Descriptive Study of Underachievers as Represented by Students Participating in the Upward Bound Program at the University of Montana." (Unpublished Doctor's dissertation, University of Montana, 1969) pp. 472-473.

<sup>&</sup>lt;sup>29</sup>Allen, op. cit. pp. 86-92.

<sup>&</sup>lt;sup>30</sup>Dutton, op. cit. p. 130.

these characteristics were significantly associated with program participation, made apparent the degree of alienation and indicated the possible effect such characteristics would have on the learning progress of each student. 31

Renbarger, in his study on the relationship between self-esteem and academic achievement in disadvantaged Afro-American women in a Detroit clerical training program, found that the higher the female student's self-esteem, the higher was her academic achievement. The reverse was also true; negative progress in self-esteem produced negative results in academic achievement. Low esteem was found to be more characteristic of Afro-American males than of Afro-American females. In light of the general agreement that racial distinction has an effect on self-esteem, it can be said that racial and cultural influences are relevant to learning in ABE classes. 32

Economic factors were listed by the adult black students in Hawkin's study as the primary cause for dropping out of the ABE and general education development programs in the New Orleans public schools. However, 20 percent of the dropouts responding indicated a dissatisfaction with classroom atmosphere. And the evidence demonstrated that the classes in which the instructor was seen to accept the student as an equal had lower dropout rates. Although the study did not examine the cultural backgrounds

<sup>31</sup> Ibid. pp. 125-129.

<sup>32</sup>R. N. Renbarger. "An Experimental Investigation of the Relationship Between Self-Esteem and Academic Achievement in a Population of Disadvantaged Adults." (Unpublished Doctor's dissertation, Michigan State University, 1969)

of the sample population per se, the personal characteristics of the sample population, significant to the dropout rate, indicated relevant influences on learning progress.<sup>33</sup>

# Adult Learning

Research studies indicate that the basic ability of adults to learn continues regardless of age.<sup>34</sup> As Zahn stated:

Whenever learning ability is measured without strict time limits, learning ability does not decline between 20 and 60 years of age.  $^{35}$ 

The physical state of the learner is more influential on learning progress in that his speed of performance may be slower due to such factors as reduced sight and hearing abilities. According to Monge and Gardner, given a slower pace and more time, the older adults will even outperform lower age groups.<sup>36</sup>

<sup>33</sup>Dorothy Lee Hawkins. "A Study of Dropouts in an American Basic Education Program and a General Education Development Program and Suggestions for Improving the Holding Power of These Programs." (Unpublished Doctor's dissertation, Indiana University, 1968).

Learning." Adult Education, Vol. 17(2):67-77. Winter, 1967; see also Ann P. Hayes, New Dimensions in Adult Basic Education Research and Demonstration in Adult Basic Education. Adult Education Association of the U.S.A. Commission on Adult Basic Education. December 8, 1969; see also Gale Jensen, A. A. Liveright, and Wilbur Hallenbeck. Adult Education: Outlines of an Emerging Field of University Study. Adult Education Association of U.S.A. 1964; see also Andrew Hendrickson. "Adult Learning and the Adult Learner." Adult Leadership, Vol. 14:254-256. February, 1966; see also J. R. Kidd. How Adults Learn. New York: Houghton-Mifflin Company. 1967; see also Paul Bergerin. A Philosophy for Adult Education. New York: The Seabury Press. 1967.

<sup>35</sup>Zahn, op. cit. p. 69.

<sup>&</sup>lt;sup>36</sup>R. P. Monge and Eric Gardiner. "Syracuse University Adult Development Study: A Progress Report." (Unpublished paper) cited by Ann P. Hayes, op. cit. p. 4.

Also related to adult learning, motivation, and self-image is Hendrickson's concept that it is easier for an experienced person to learn a completely new task by using his past experiences to foster generalizations and the discovery of new relationships.<sup>37</sup> Zahn corroborated Hendrickson's point of view, adding that:

The way in which a person organized his perceptions, as well as what he selects to perceive, is influenced by what he expects; and what he expects depends on his experience and his motives. 38

Perceptions of adults are more difficult to change, although adults learn more, and more quickly than children, if the learning is based on their past experiences. Adults are often more highly motivated, since it is easier for them to connect learning with immediate application to personal and social needs and interests. This is appropriate in ABE where the goals of the learner are closely associated with employment and status.

Puder and Hand maintain that personality factors may interfere with the learning of ABE students. Such factors would include alienation, avoidance, hostility toward authority, fear of schools, rejection of desire to develop intellectually, rigid value systems, and a defeatist attitude. 39

<sup>&</sup>lt;sup>37</sup>Andrew Hendrickson, op. cit. p. 225.

<sup>&</sup>lt;sup>38</sup>Jane C. Zahn, op. cit. p. 72.

<sup>&</sup>lt;sup>39</sup>William Puder and S. E. Hand. "Personality Factors Which May Interfere with the Learning of American Basic Educational Studies." Adult Education. 18:31-93. Winter, 1968. p. 53.

A similar point of view, by Vontress, tracing stages of adult development and relating them to education, stated that, "The individual who hates himself for whatever reason is most difficult to teach." All Zahn was more specific in her study, reporting that persons measuring high in feelings of powerlessness, found it harder to learn "control-relevant" information than those with more confidence in their own ability to affect what happened to them.

Knowing what roles a student identifies with, how newly acquired the identity, what needs or habits he has that may conflict with the content of the learning, and how much control he feels he has over what happens to him are aspects of 'where the student is' that are relevant to learning.<sup>41</sup>

She insists that this is true not only with individuals but also with groups as well, including such minorities as Afro-Americans, Indian-Americans, and Mexican-Americans.  $^{42}$ 

Finally, it should be noted that Sticht's summary claimed:

. . . no definitive research evidence has been found to suggest that disadvantaged adults have any less ability to learn than other more advantaged adults.<sup>43</sup>

<sup>40</sup>Clemont E. Vontress. "Adult Life Styles: Implication for Education." Adult Leadership. May, 1970. 19:11-26. p. 26.

<sup>&</sup>lt;sup>41</sup>Jane C. Zahn. "Some Adult Attitudes Affecting Learning: Powerlessness, Conflicting Needs and Role Transition." <u>Adult Education</u>. 19:91-97, Winter, 1969. p. 95.

<sup>&</sup>lt;sup>42</sup>Ibid. p. 96.

Thomas G. Sticht. <u>Learning Abilities of Disadvantaged</u>. George Washington University, Alexandria, Virginia. March, 1969. p. 9.

In fact, he believes that there is little substantial information concerning the learning abilities of the disadvantaged adult. The primary
agreement he had with other educators was that most testing instruments,

...are not valid instruments for assessing the learning ability of these adults, because they are based on environmental experiences almost wholly alien to the low socioeconomic adult.<sup>44</sup>

#### Summary

A review of the literature relevant to this study has revealed that there is a growing concern among educators regarding the importance of the influence of cultural and environmental background factors in learning experiences. Continued research has revealed the complexity of the problems involved in the cross-cultural and cross-subcultural education that takes place in ABE classrooms. One important issue identified as helpful background for this study was the conflict between the Indian and non-Indian cultures regarding acculturation, value systems, learning perceptions, and learning achievement. Other pertinent issues included such factors as skill deficiencies of the undereducated and culturally deprived and personality factors such as feelings of alienation and negative self-image characteristic of underachieving and disadvantaged persons.

The research concerning adult learning supported the concept that adults may be slower in performance but retain the ability to learn.

Adult students are often highly motivated and able to relate new learning

<sup>44</sup> Ibid. p. 6.

to past experiences or present employment. However, there are personality factors common in ABE students, (such as feelings of powerlessness, hostility, and anti-intellectualism) that do interfere with learning achievement.

One limitation of some past research, relevant to this exploratory study, is the inadequacy of measuring instruments, due to various cultural and social class biases.

#### CHAPTER III

#### METHODS AND PROCEDURES

# The Population

The population of this study consisted of members of the ABE class at the Missoula Technical Center enrolled during the month of March, 1971. Forty-two volunteer students from the class participated in the survey by completing the cultural survey questionnaire. (See Appendix F, page 95) Twenty-seven of those students also completed a pre-test and post-test to determine learning progress. The population was reduced by the researcher's criterion that class enrollment be one month or longer in duration to qualify for an adequate learning progress rate. The population was further reduced by student dropouts during the three weeks required to gain the necessary data. Every effort was made to include as many of the Indian students as possible.

# The Instruments

In order to determine the cultural and environmental background of the ABE class members, a survey type questionnaire was developed. The selected items were developed in consultation with Dr. Floyd Sharrock, Department of Anthropology, and Dr. Robert Anderson, School of Education, University of Montana, and Mrs. Sue Mielke, the ABE instructor at Missoula Technical Center. The items were designed to reflect the cultural and environmental factors which might influence the learning process of the ABE student. A pre-study of cross-cultural education, with emphasis on Indian education, was used as a basis for the questionnaire construction.

The learning rate of the class was determinde by the use of the ABE Student Survey Test, published by the Follett Educational Corporation. The ABE Student Survey is a multi-level, adult-oriented test ranging from grade one equivalency to grade 7.9 equivalency. It consisted of four parts: 1) Reading Comprehension; 2) Word Recognition; 3) Arithmetic Computation; and 4) Arithmetic Word Problems. Answer sheets were used with a non-consumable test booklet.

# The Survey Procedure

The cultural and environmental survey questionnaire was administered by the investigator during regular class sessions. Students not able to read the questionnaire had it read to them by the teacher-aide in an inconspicuous manner. The questionnaires were numbered to provide non-identity of those participating. The data was tabulated manually and the analysis of the data was organized into the following seven major categories: (1) Identification, (2) Reservation, (3) Social-Political, (4) Educational, (5) Family, (6) Economic-Employment, and (7) Personal Preferences and Practices. (See Appendix E, page 93) Student dropouts intensified the follow-up difficulties.

The Follett ABE Student Survey Test is the test normally used by the ABE teacher for each new student entering the class. These entry scores were used, with permission, as the pre-test scores. The post-test was administered during the month of March by the same teachers and teacher-aide who administered the pre-test, thus keeping a consistency for the purpose of minimizing the "Hawthorne Effect."

Although the tests were given to all the students at the same time, each student was free to work on his test individually, without any set

time limit. The ABE Student Survey is a power test, not a timed test. Due to the scoring penalty for each wrong answer, students were informed to stop when the questionnaire became too difficult for them. The raw scores from the tests were converted to corrected scores, which were in turn converted to grade equivalency through the use of a chart provided with the test. (See Appendix A, page 87)

Interviews with the teachers and teacher-aide were conducted on an informal basis while the investigator assisted in the class routine on a volunteer internship basis.

#### Treatment of Data

All data were treated in tabular form with comparisons made between Indian and non-Indian categories for the cultural survey and the learning progress results. The Follett ABE Student Survey results were analyzed with the non-parametric Mann-Whitney U Test. (See Appendix G, page 100)

One arbitrary decision made by the investigator during tabulation was to use the first answer if several were given when only one was asked for. Another arbitrary decision made was to classify the responses to questions 8, 9, 46, 53, and 61 into alternative categories to facilitate tabulation.

Sciences. New York: McGraw-Hill Book Company, Inc. 1956, pp. 116-127.

#### CHAPTER IV

#### FINDINGS

# Demographic Information of Cultural Survey

The survey of cultural and environmental factors of the ABE students was accomplished through the use of a questionnaire constructed for that purpose. The analysis of the data received by means of the instrument was tabulated in seven categories of cultural and environmental characteristics; namely, Identification, Reservation, Social-Political, Education, Family, Economic-Employment, and Personal Preference and Practices. The data was also tabulated according to the categories, Indian and non-Indian, for comparison and correlation.

# Identification Characteristics

The sex distribution of the 42 members of the ABE population was 62 percent male and 38 percent female. (See Table #1, page 29) However, state distribution in 1968-1969 was 47 percent male and 53 percent female. 1

The age distribution of the ABE population ranged from 14 years, 6 months (14.6), to 53 years, 8 months (52.8). The mean age of the total population was 22.8, while the mean age of the Indian and non-Indian groups were 21.1 and 24.4 respectively. The median age of the Indian and non-Indian groups were 21.11 and 21.3 respectively. The largest percentage of students, 82 percent, were under 25 years of age.

<sup>&</sup>lt;sup>1</sup>U. S. Department of Health, Education, and Welfare. Office of Education. Adult Basic Education Program Statistics: Students and Staff Data. July 1, 1968 - June 30, 1969. p. 11.

This percentage was the reverse of the 1967 national distribution which registered 74 percent of the ABE students over 25 years.<sup>2</sup>

The birthplace statistics were less significant to this study than the sex, age, and marital status of the target population. Note should be made, nevertheless, that almost 50 percent of the students were born in Montana. Sixty-four percent of the ABE class surveyed were single and less than a quarter of the group was presently married or had remarried. The high percentage of single students of relatively young adult age indicated different personal needs and curriculum possibilities than would a higher percentage of married adults.

<sup>&</sup>lt;sup>2</sup>U. S. Government Printing Office. <u>First Annual Report of the National Advisory Committee on American Basic Education</u>. House Document No. 384: 90th Congress, 24th Session. September 16, 1968. p. 15.

Table 1
Sex, Age, Marital Status, Birthplace, Distribution of ABE Students

Sex:	Indian		Non-Indian
Male	5		21
Female	<u>6</u> 11		<u>10</u>
Age:	11		31 Total (N)=42
Under 20 years	4	Percent 36.36	10 <u>Percent</u> 32.26
20-24 years	5	45.45	10 32.26
25-29 years	1	09.09	6 19.35
30+ years	11	09.09 99.99	$\frac{5}{31}$ $\frac{16.13}{100.00}$
Marital Status:			
Single	6	54.54	21 67.74
Married	3	27.27	6 19.35
Divorced	2	18.18	3 09.68
Remarried	11	00.00 99.99	$\frac{1}{31}$ $\frac{03.23}{100.00}$
Birthplace:			
Montana	8	72.72	12 38.71
California	1	09.09	5 16.13
Washington	1	09.09	5 16.13
North Dakota	0	00.00	3 09.68
Arkansas	1	09.09	0 00.00
New York	0	00.00	1 03.23
Oregon	0	00.00	1 03.23
Colorado	0	00.00	1 03.23
Texas	0	00.00	1 03.23
Missouri	0	00.00	1 03.23
Maryland	<u>0</u> 11	00.00 99.99	$\frac{1}{31}$ $\frac{03.23}{100.03}$

### Reservation Characteristics

There were 11 Indian students, as defined in this study, participating in the survey. They made up 26 percent of the total population. Eleven students composed too small a population for accurate representation of the Indian culture, yet they did suggest trends. Although there are seven tribal reservations in Montana, the only two represented in the ABE class survey were the Crow and Flathead (see Table 2).

Table 2
Indian Tribes Represented by Parental Heritage of ABE Students

<u>Tribe</u> :	<u>Father:</u>	<u>Mother:</u>
Crow	3	4
Flathead	1	1
Cherokee	0	3
Haida	0	1
'Indian'	1	1

Table 3 shows that almost half of the Indian students participated in the ceremonial games and dances. More women than men participated in both activities. These findings could reflect personal preferences for tribal traditions and culture or a move toward renewed interest in the tribal ceremonial activities of the "new Indian." <sup>3</sup>

Table 3

Indian Student Participation in Ceremonial Dances and Games

	Me	<u>en</u>	Wome	e <b>n</b>
	<u>Yes</u>	No	Yes	No
Dances:	1	4	5	1
Games:	2	3	3	3

<sup>3</sup>Stan Steiner. The New Indians. New York: Harper and Row. 1968.

Table 4 is a partial tabulation of the data received, showing only the life periods of Indian students living on or off the reservation. Since only one non-Indian student lived on a reservation, during the life periods represented, that group was excluded from the table.

Although reservation life is often influenced by the non-Indian culture, living on a reservation continues to be an appropriate channel communicating Indian cultural factors.

Table 4

Reservation Life of Indian ABE Students During Three Life Periods

	Age 0-	5 years	Age 5-1	0 years	Age	10-20	years
Reservation	<u> On</u>	<u>Off</u>	<u>0n</u>	<u>Off</u>	<u>On</u>	<u>Off</u>	No <u>Response</u>
Indian Students	5	6	4	7	4	6	1

# Social-Political Characteristics

The largest percentage of the ABE students, both Indian and non-Indian, did not appear to be politically minded (See Table 5). Since the students had little interest in political parties, the high percentage of responses for no favorite 1968 presidential candidates was consistent. These findings corroborated Zahn's implication that persons feeling helpless to influence their own lives or the circumstances in which they find themselves, instead of exercising responsibilities of citizenship, develop feelings of alienation and normlessness.<sup>4</sup>

Table 5
Distribution of ABE Students According to Political Party
1968 Presidential Candidates

Political Party:	Indian	Percent	Non-Indian	Percent
Republican	1	09.09	4	12.90
Democrat	4	36.36	7	22.58
Independent	0	00.00	6	19.35
Other	1	09.09	2	06.45
No Party	<u>5</u> 11	45.45 99.99	<u>12</u> 31	$\frac{38.71}{99.99}$
1968 Student Choices Presidential Candida				
Nixon	1	09.09	6	19.35
Humphrey	1	09.09	2	06.45
McCarthy	0	00.00	1	03.23
	0	00.00	<b>. 3</b>	09.68
Wallace				
Wallace No Favorite	9	81.81	18	58.06

<sup>&</sup>lt;sup>4</sup>Jane C. Zahn. "Some Adult Attitudes Affecting Learning: Power-lessness, Conflicting Needs, and Role Transition." <u>Adult Education</u>. 19:91-97, Winter, 1969. pp. 92, 96.

Table 6 indicates nominal religious preferences among the population, specifically that the students were not a religiously active group. This indication was verified by the fact that over half of each group marked the response of less than yearly attendance at church. One Indian student marked a preference for the Native American Church. This factor indicated a closer tie with the traditional Indian culture and is discussed with the student profiles later in this chapter (see p. 68). Membership in the Native American Church has become one symbol of the movement by Indian-Americans toward more traditional values and perspectives.

Table 6
Distribution of ABE Students According to Religious Preference and Frequency of Church Attendance

Religious Preference:	Indian	Percent	Non-Indian	Percent
Roman Catholic	2	18.18	5	16.13
Protestant	3	27.27	14	45.16
Native American Church	1	09.09	0	00.00
<b>Other</b>	3	27.27	11	35.48
No Response	<u>2</u> 11	18.18 99.99	<u>1</u> 31	$\frac{03.23}{100.00}$
Church Attendance:				
Weekly	1	09.09	6	19.35
Monthly	3	27.27	4	12.90
Yearly	0	00.00	4	12.90
Less than Yearly	6	54.54	15	51.61
No Response	1	$\frac{09.09}{99.99}$	<u>]</u> 31	03.23 99.99

#### Educational Characteristics

Table 7 shows that Indian students remained in school longer than the non-Indian students by one grade on the average. The mean grade the students were attending when they left school was grade 9.8 for the Indian group and grade 8.8 for the non-Indian group. Furthermore, 36 percent of the Indian students reached grades 10 through 12, while only 29 percent of the non-Indian group reached those grades. When the ninth grade was included with the 10 through 12 grades for tabulation, the Indian students had even higher representation of grades completed.

There was a 10-month difference between the Indian and non-Indian groups in the category of the age the students entered school. The mean age for the Indian group was 5.6 years and for the non-Indian group, 6.5 years. The 10-month difference between the two groups was not sufficient to be relevant to this study.

The target population was small, as was stated above; however, the trend implied the Indian group had more experience in a formal school setting and were slightly more successful than the non-Indian group while there. Their success was suggested by the number of students who repeated a grade in school; 36 percent of the Indian group as compared to 48 percent of the non-Indian group. However, the literature reviewed inferred the Indian students in this study were exceptions at this point. These students appeared to compete more successfully in non-Indian schools than did other Indian groups in the studies reviewed. Possible explanations for this success could be explored in future research in the areas of individual acculturation, particular tribal characteristics, and educational opportunities available to individual students.

Table 7

Distribution of ABE Students
According to Last Grade Attended in Formal Schooling and Grades Repeated

Last Grade Attende	<u>d</u> :	•		
<u>Grade</u> :	Indian	Percent	Non-Indian	Percent
1	0	00.00	1	03.23
6	0	00.00	1 -	03.23
7	0	00.00	1	03.23
8	2	18.18	9	29.03
9	3	27.27	5	16.13
10	1	09.09	3	09,68
11	1	09.09	5	16.13
12	2	18.18	1	03.23
No Response:	<u>2</u>	18.18 99.99	<u>5</u> 31	$\frac{16.13}{100.02}$
Students Repeating <a href="Grades">Grades</a> :				
Yes:	4	36.36	15	48.39
No:	7	63.63	15	48.39
No Response:	<u>0</u> 11	<u>00.00</u> 99.99	<del>1</del> 31	03.23 100.01

Both groups studied in the ABE population indicated a major reason for enrolling in the ABE class was the desire to attain a high school equivalency by passing the General Educational Development tests (GED) (see Table 8). The students generally associated the GED as coinciding with necessary requirements for securing employment. Personal conversation with the students revealed that the GED is very often equated with finishing high school and thus providing opportunity for employment with the result that students often partially ignore necessary employment skills. In addition, the GED was important to many students in both groups as a source of personal satisfaction, which they would receive from the accomplishment of having finished high school. By combining the responses to the "Get the GED" and "Finish High School" items shown in Table 8, approximately 45 percent of the Indian students and 75 percent of the non-Indian students were interpreted as feeling a very real pressure to attain GED status.

Perhaps additional information, relevant to curriculum strategies, could have been discovered had the item "reason not listed" been designed for more specific responses. Since 27 percent of the Indian group marked that item, findings from the Indian group were somewhat limited in Table 8.

Table 8
Reasons for Enrolling in ABE Class

0 4 1	00.00 36.36 09.09	4 20 3	12.90 64.52
4			
1	09.09	2	
		3	9.68
0	00.00	2	6.45
1	09.09	0	0.00
2	09.09	0	0.00
<u>3</u>	27.27 99.99	<u>0</u> 31	$\frac{0.00}{100.00}$
	1 2 3	1 09.09 2 09.09 3 27.27	1 09.09 0 2 09.09 0 3 27.27 0

Clearly, the largest majority of both groups planned to remain in the ABE class until they either finished high school or found a job (see Table 9). These findings reflect a personal determination of ABE students possibly motivated by the practice of voluntary attendance in the adult curriculum as well as pressure for better job security. Almost half of the Indian group and about one third of the non-Indian group would leave school if they had employment.

Table 9
Factors Affecting Termination of ABE Instruction

Students Would Leav School When:	'e			
school when:	Indian	Percent	Non-Indian	Percent
Free to Quit	1	09.09	0	00.00
Felt Like Quitting	0	00.00	2	06.45
Finish High School	5	45.45	15	48.39
Got a Job	5	45.45	11	35.48
No Response	0	00.00 99.99	3	09.68 100.00

Table 10 shows that both groups recognized the importance of education for both men and women. The relatively high percentage of non-Indians who emphasized education for men only could have reflected other ethnic backgrounds where male education was dominant for family support and community leadership. Extended investigation into the research of the male role in our changing society and its reflection in educational priorities could prove helpful for further analysis of these responses.

Table 10
Expressed Importance For Further Education

	Indian	Percent	Non-Indian	Percent
For Men	1	09.09	8	25.81
For Women	0	00.00	. 0	00.00
For Both	9	81.81	22	70.97
For Neither	1	09.09	0	00.00
No Response	<u>0</u>	00.00 99.99	<del>1</del> 31	$\frac{03.22}{100.00}$

The reading habits of both groups were varied (See Table 11). Over half of the Indian students prefer books to other reading material, while almost 40 percent of the non-Indian group prefer magazines. Had the students been asked to list the books and magazines they read, more specific conclusions could have been made. In a class involving remedial reading, as ABE does, such additional information could be very helpful for curriculum planning.

Table 11
Preference of Reading Materials of ABE Students

	<u> Indian</u>	Percent	Non-Indian	Percent
Books	6	54.54	9	29.03
Magazines	1	09.09	12	38.71
Comics	1	09.09	3	09.68
Newspapers	2	18.18	4	12.90
None	1	09.09	1	03.23
No Response	<u>0</u> 11	00.00 99.99	<u>2</u> 31	06.45 100.00

The class subject preferences were quite evenly distributed within both groups (see Table 12). About 45 percent of the non-Indian group showed an interest in mathematics and science, an understandable choice in light of the national emphasis on those subjects in recent years. The only non-listed subject volunteered under the questionnaire item "other" was the choice of history by a person in the non-Indian group.

Table 12
Preference of Class Subjects of ABE Students

	Indian	Percent	Non-Indian	Percent
Mathematics	2	18.18	7	22.58
Science	2	18.18	7	22.58
Spelling	2	18.18	2	06.45
Poetry	0	00.00	1	03.23
Reading	. 2	18.18	4	12.90
Geography	1	09.09	5	16.13
Other	<u>2</u> 11	18.18 99.99	<u>5</u> 31	16.13 100.00

The responses to the questions concerning learning English as a first language are shown in Table 13. These questions were asked because of the accepted concept that a first language learned, if it is other than English, could be a handicap to learning in a formal school setting in our society. Table 13 indicates that less than half of the Indian group speak any tribal languages, although some of their perents still speak them. These results indicated that the Indians in the target group were acculturated early into the non-Indian school system and possibly, the non-Indian value system.

Table 13
Responses to Questions Concerning Language Instruction

	<u>Indian</u>	Non-Indian
English as first language learned	Yes: 10	28
	No: 1	3
Languages, other than English you now speak:	Crow (1) Spanish (2) Indian (2)	German (1) Lebanese (1)
Language preference:	English (6) Indian (2) French (1)	English (22) Lebanese (1)
Languages, other than English spoken by parents	Crow (4) French (2) Haida (1)	German (7) Swedish (1) French (1)

<sup>&</sup>lt;sup>5</sup>R. S. Robinson. "The Relationship Between Certain Environmental Factors and the Proficiency of Blackfeet Indian Children with Written English." (Unpublished Masters Thesis, University of Montana, Missoula. 1967), p. 25.

As indicated by the Data in Table 14, a large percentage of the ABE students desired to attend institutions of higher education. The Indian group percentage was high with 73 percent. That high percentage may have been a reflection of the Indian student's awareness of the importance of higher education for Indian people today, as well as, the determination these particular students felt to satisfactorily compete in the non-Indian world.

Table 14

Desire of ABE Students to Attend Institutions of Higher Learning

		Indian	Percent	Non-Indian	Percent
Student Responses:	Yes:	8	72.72	14	45.16
	No:	3	27.27	15	48.39
	No Response:	: <u>0</u>	00.00 99.99	<del>2</del> 31	06.45

### Family Characteristics

Forty-five percent of the Indian students left home before age 18, while only 35 percent of the non-Indian students left before that age (see Table 15). Thirty-two percent of the non-Indian students still reside at home. This factor was partly explained by the fact that several ABE students were physically handicapped and needed the physical care offered by the home environment. Another relevant factor considered was the large number of single students in the particular ABE class surveyed.

Table 15 shows there was no significant difference between the two groups concerning the age the student left home. The mean age for leaving home for the Indian students was 16.7 years and for the non-Indian students it was 18.2 years.

Table 15

Age ABE Students Left Home

	Indian	Percent	Non-Indian	Percent
At or before age 15	3	27.27	5	16.13
Age 16-17	2	18.18	6	19.35
Age 18-19	3	27.27	2	06.45
At or after age 20	1	09.09	5	16.13
Did not leave	2	18.18	10	32.26
No response	<u>0</u> 11	00.00 99.99	<u>3</u> 31	$\frac{09.68}{100.00}$

Table 16 shows particular home characteristics that reflected economic and social status in our society. These characteristics also suggested proximity to urban influence which, in turn, suggested the influence of the non-Indian culture. The high percentage of affirmative answers to the availability of running water, electricity and telephone, indicated that most of the students in this ABE class had been influenced by the structures and values of modern urban life. In response to the question, "Where did you go when you left home?", 19 percent of the total population listed their destinations as the "city." (See Appendix F, page 95)

The Indian students came from slightly larger families. The mean number of persons in the home, in addition to the student, for the Indian group was six, while for the non-Indian group, it was about four. Only about six percent of the non-Indian families numbered more than seven in addition to the student, whereas about 27 percent of the Indian families were larger than seven in addition to the student.

Table 16

Distribution of Home Characteristics of ABE Students:
Running Water, Electricity, and Telephone
Number of Persons, Number of Rooms, and Construction Type

	Ru	unning	<u>Water</u>	Electricity	Telepho	one
Indian:	Yes:	9		11	6	
	No:	2		0	5	
Non-Indian:	Yes:	29		29	27	
	No:	1		0	3	
No Resi	ponse:	1		2	1	
	-		Indian	Percent Percent	Non-Indian	Percent
Number of ro	oms:				•	
3 or 1	ess		4	36.36	5	16.13
4 - 6			4	36.36	17	54.84
7 +			<u>3</u> 11	<u>27.27</u>	9	29.03
Number of per family home, tion to the	in addi	, -	11	99.99	31	100.00
3 or 1	ess		2	18.18	11	35.48
4 - 6			6	54.54	15	48.39
7 +			3	27.27	4	12.90
No Res	•		<u>0</u> 11	$\frac{00.00}{99.99}$	<del>1</del> 31	$\frac{03.23}{100.00}$
Construction		e:	1	09.09	6	19.35
Stone/I Wood Fi			9	81.81	18	58.06
Log	une		í	09.09	3	09.68
0ther			0	00.00	4	12.90
•••			11	99.99	31	100.00

## Economic-Employment Characteristics

The ownership of automobiles and television sets denotes both economic and social status. Thirty-five percent of the total ABE class owned cars, as indicated in Table 17. Of that number, 78 percent were men. Over half of the Indian students owned cars, with the non-Indian students only slightly less. Three students indicated they owned two vehicles, but in each case both cars were models in the 1950's. The economy price class plus the older years of the cars owned supported the generally lower economic status of ABE students. The newest vehicle in the Indian group was dated 1964.

Considering the fact that about 12 percent of the students have handicaps which would impair their driving a car, the high percentage of students owning cars reflected the importance the car had as an economic status symbol for young adults in our society. This analysis was supported by conversations with the students. Both groups were culturally similar in regard to car ownership.

Television ownership, in general, was also a symbol of economic status. The portable and black/white class was indicative of a lower price range; consoles and color, indicative of higher price (see Table 17).

The fact that every student owned a television--with only one possible exception--highlights the importance of this media regardless of economic resources.

Table 17
Responses of ABE Students to Questions of Car and TV Ownership

QLa Service and description	Indian	Percent	Non-Indian	Percent
Do you own a car? Yes	: 6	54.54	15	48.39
No:	4	36.36	16	51.61
No Response:	11	09.09 99.99	<u>0</u> 31	00.00
	Inc	dian_	Non-I	ndian_
Make and year of your car?	1950's	1960's	1950's	1960's
Economy price class: (Ford, Plymouth, Chevrolet, Rambler, Datsun)	4	4	10	4
Medium price class: (Dodge, Buick)	0	1	0	2
	Inc	dian_	Non-I	ndia <u>n</u>
What kind of TV do you have?				
Black and White	9	9	2	3
Color	;	3		7
Portable	4	4	1	4
No TV	(	0		0
No Response	(	0		1

The Data in Table 18 illustrates that about 80 percent of both groups are not presently employed. Part of this result was explained by the lack of adequate job qualifications by the students. Without at least a GED, employment is not only low in pay, but difficult to find in a college town. Another factor, relevant to the lack of employment by the students was that many of the ABE students were recipients of federal, state, or local support funds, while attending the ABE class. Often they were not permitted to be employed while receiving such funds.

The kind of work the students preferred, as indicated in Table 18, would be very relevant to the content of the curriculum and the educational and vocational counseling the students received. The Indian group expressed preference for outdoor work. There were many other factors involved in vocational interests which needed to be explored further than the scope of this study.

The majority of the students had no plans for future work (see Table 18). This finding was consistent with the general ABE student "live-now" life style. More Indian students said they had future plans than non-Indian students did. However, many of them were not specific in describing those plans, thus creating much doubt in the mind of the investigator about the reality of their plans.

Table 18
Responses of ABE Students to Questions of Employment

Are you working at present?			Percent	Non-Indian	Percent
	Yes:	2	18.18	5	16.13
	No:	9	81.81	25	80.64
No Re	sponse:	0	00.00 99.99	31	03.23
Is there a job waiting for you	Yes:	3	27.27	5	16.13
after you complete this class?	No:	8	72.72	25	80.64
No Re	sponse:	<u>0</u> 11	00.00 99.99	31	03.23 100.00
What work do you like best?	Indoor:	4	36.36	18	58.07
0	utdoor:	7	63.63	12	38.71
No Re	sponse:	<u>0</u> 11	00.00 99.99	1 31	03.23
Do you have plans for future work?	Yes:	5	45.45	6	19.35
	No:	6	54.54	20	64.52
No Re	sponse:	<u>0</u>	00.00 99.99	<u>5</u> 31	16.13 100.00

An examination of Table 19 shows that 41 percent of the parents of the Indian group were classified as skilled labor, which included semi-professional as well. Twenty-one percent of the non-Indian group parents were skilled. Neither of these figures took into account the parents listed as retired, disabled, or deceased. No other classification was given the latter group.

The employment of the parents could have been influential on the students. It would be closely associated with the socio-economic status of the family and, in that way, would exercise a cultural influence. Some occupations listed by Indian students regarding their fathers were: tribal leader, U. S. Government photographer, carpenter, disabled veteran, factory worker, laborer, janitor, and baker. Parents with skilled occupations, such as tribal leader, U. S. Government photographer, and baker, could influence their children toward the competitive drive apparent in several high scoring Indian students. (see discussion on page 69) Illustrative of occupations of the fathers of non-Indian students were: supervisor, real estate, truck driver, salesman, motel operator, logger, rancher, and prison guard. The majority of non-Indian responses for their mothers' employment was in the unskilled category, a large percentage of which were "housework." That picture was not the same for the employment of the mothers of the Indian students. Most of them had trades such as politics, coordinator, licensed-practical nurse, baker, and cook.

Their was little observable correlation between the occupations listed for the students and the occupations given for their parents.

Table 19
Type of Employment of ABE Students and Their Parents

<u>Indian</u> :	Skilled	Semi- Skilled	Unskilled	Retired, Disabled, Deceased	No Response	Totals
Student	3	7	1	0	0	11
Father	4	2	4	0	1	11
Mother	5	1	3	0	2	. 11
Non-Indian:	:					
Student	2	11	7	0	11	31
Father	7	11	4	0	3	31
Mother	6	3	18	0	4	31

The economic portrait of the ABE students in Missoula began with an inquiry in the highest weekly income ever received by a student (see Table 20). Recognizing the fact that a student could have had a large weekly income for a brief duration of employment, no yearly income was calculated from the responses. However, the figures do indicate some financial potential of the ABE student. A greater percentage of Indian students reported they earned less per week, for any one week, than the non-Indian student earned. Sixty-four percent of the Indian students earned less than \$100 per week as the highest income. Forty-two percent of the non-Indians earned less than \$100 as the highest weekly salary. If the weekly income were converted to yearly income, the income range of both Indian and non-Indian groups would be similar to the income range reported by other studies. Dutton reported that the income of ABE students in Hillsboro County, Florida ranged from \$1,000 to \$5,000 per year. 6 Hawkins reported the income of ABE students in New Orleans, Louisiana ranged from a mean yearly income of approximately \$2,300 to \$6,700.7

<sup>&</sup>lt;sup>6</sup>Marion Donnie Dutton. "A Description and Analysis of Selected Characteristics of Participants in Adult Basic Education in Hillsborough County, Florida." (Unpublished Doctor's dissertation, Florida State University, 1967) p. 122.

<sup>&</sup>lt;sup>7</sup>Dorothy Lee Hawkins. "A Study of Dropouts in an American Basic Education Program and a General Education Development Program and Suggestions for Improving the Holding Power of These Programs." (Unpublished Doctor's dissertation, Indiana University, August, 1968) p. 56.

Table 20
Highest Weekly Income of ABE Students

Indian	Percent	Non-Indian	Percent
4	36.36	6	19.35
3	27.27	7	22.58
3	27.27	. 5	16.13
0	00.00	1	03.23
0	00.00	2	06.45
1	09.09	4	12.90
<u>0</u> 11	00.00 99.99	<u>6</u> 31	19.35 99.99
	4 3 3 0 0 1	4 36.36 3 27.27 3 27.27 0 00.00 0 00.00 1 09.09 0 00.00	4       36.36       6         3       27.27       7         3       27.27       5         0       00.00       1         0       00.00       2         1       09.09       4

### <u>Personal Preference and Practice Characteristics</u>

The frequency of medical and dental visitation often signifies cultural urbanization, as well as economic class. There are exceptions, of course, but generally farm families do not frequent medical services unless they have been influenced by an urban mindset. Table 21 indicates that 73 percent of the Indian students and 55 percent of the non-Indian students visited a doctor within the past three months. Recognizing the lower economic status of many of the students, the frequent visitations was partly explained by the number of students who received financial support from federal programs or state welfare. These programs often make medical care possible for disadvantaged persons.

Dental care is a luxury to disadvantaged populations, unless cared for by special program funds. Both survey groups had similar distribution in this area. The responses marked "none of these" were included with the "two year" responses for purposes of tabulation. Thus, it was found that 64 percent of the Indian group had not visited a dentist within the past two years while 55 percent of the non-Indian group were in the same category.

Table 21
Frequency of Visitations To Doctor and Dentist By ABE Students

Doctor visited within past:	3 months	6 months	l year	2 years	none of these
Indians:	8	2	0	0	1
Non-Indians:	17	2	6	4	2
Dentist visited within past:					
Indians:	1	0	3	6 '	1
Non-Indians:	6	4	4	9	8

A primary area of inquiry in this exploratory survey centered around the question, "Do Indian students in ABE have similar tastes as do non-Indians concerning music preference, radio and television preference, use of alcohol and tobacco, favorite sports, food preferences, and persons from whom they would seek counsel?" The responses to this inquiry are shown in Tables 22 through 28.

Music is often a symbol of cultural background. Table 22 shows the majority of both groups prefer country western music, with the guitar as a favorite instrument. There was a strong possibility that country western music and the guitar were more a mood of the historical times than geographical or cultural indication. Noted were the absence of Indian culture instruments from the Indian student preferences. Only one student in that group listed drums as a favorite. Only the non-Indian students, however, mentioned instruments of more middle-class society, such as the piano or organ.

Table 22
Music Preferences of ABE Students

	Indian	Non-Indian
Type of music:		
Country Western	6	15
Modern (popular)	3	7
Jazz	0	0
Rock	0	7
Other	2	2
ype of instrument:		
Guitar	7	14
Drums	1	7
Sax	2	0
Piano	0	1
Organ	0	1
Harmonica	0	1
Fiddle	0	1
Banjo	0	. 2

Radio listening and television viewing are indicative of both cultural influence and personal interest and values. Both groups were similar regarding the mean hours spent listening to the radio and watching television. Both groups preferred the melodramatic-western-mystery type of television program. The variety-humor-musical type were second in choice. The choice of program types was characteristic of the personal interests and educational level of ABE students. Generally, television is a welcomed media of communication for adults with inadequate reading skills.

Table 23

Hours Spent Radio Listening and Television Viewing and Favorite
Television Program Types of ABE Students

Mean Hours Per Day:	<u>Indian</u>	Non-Indian
Television Viewing	4.16	3.07
Radio Listening	3.00	3.07
Program favorite types:		
News ·	1	4
Melodrama-western-mystery	17	39
Sports	0	3
Movie reruns	1	8
Variety-humor-music	6	25
No favorites	3	9

Table 24 shows that there was little difference between Indian and non-Indian students regarding the use of alcohol and tobacco. The use of beer was considered more associated with the lower economic income people rather than alcoholic beverages such as scotch and bourbon, which were associated with middle and upper classes. The highest percentage of non-Indian students, 39 percent, preferred to drink beer, strengthening the general observation that ABE students exhibit cultural characteristics of lower economic income people. Eighteen percent of the Indian group and 35 percent of the non-Indian group did not drink alcoholic beverages.

Table 24
Use of Alcohol and Tobacco Among ABE Students

Alcohol:		<u>Indian</u>	Non-Indian
Non-drinkers		2	11
Favorite drink:	Beer	2	12
	Wine	2	1
	Bourbon	1	1
	Scotch	0	0
	Not listed	2	3
	No Response	2	4
Tobacco:			
Cigarettes		9	17
Cigars		3	3
Pipe		3	3
Chew tobacco		3	1
Snuff		3	0

Table 25 shows that the largest percentage of Indian students chose group sports as favorites. Their choice could have reflected the Indian cultural values of cooperation and corporate life style or the acceptance of the public school and television emphasis on that type of sporting activity. Particular sports listed by non-Indian students, in addition to those listed in Table 25, were racing, stock-car racing, and flying.

Table 25
Favorite Sports of ABE Students

•	<u>Indian</u>	Non-Indian
<pre>Group/team sports:</pre>		
(Football, baseball, volleyball, basketball)	8	14
Individual sports:		
(Hunting, fishing, horseback riding, swimming, pool, bowling, cars, boxing tennis)	<b>,</b> 5	12
•		

The responses presented in Table 26 indicated that non-Indian students were more likely to use a school counselor than the Indian students. The Indian students would choose a friend or relative. Only 18 percent of the Indian students indicated a preference for a parent as counselor, whereas 52 percent of the non-Indian students listed that preference. These findings were significant for curriculum strategies, since a large segment of ABE teaching involves student counseling.

Table 26
Preference of Counsel for Personal Problems of ABE Students

	<u>Indian</u>	Non-Indian
Father	1	8
Mother	1	8
Brother	0	1
Sister	0	0
Friend	3	7
Relative	3	1
Counselor	1	6
Religious leader	2	5
<b>Other</b>	2	5
No Response	0	3

There were no significant differences in food preferences and practices (see Table 27). There may have been a difference between the meat preferred by the student and that which was commonly eaten. A follow-up study could help clarify that aspect of the economic picture of ABE students. Twenty-six percent of the non-Indian group did list wild meat as preferred. A choice of wild meat could have been associated with hunting as a food economy measure or as a preference for game meat as a delicacy.

The emphasis on the preference of homemade bread and dessert could have been influenced by the lower income status or merely taste.

Salad was considered to be eaten with the meal by poorer people as a vegetable, if at all. Middle-class culture influenced eating salad before the meal. However, regional variation in customs must also be explored if analysis of this factor is to be pursued further.

The four most popular vegetables, i.e. corn, peas, beans, carrots, were interpreted to be the cheapest available either from a store or a private garden.

In general, food preferences gave additional support to the other findings related to the lower economic status of the ABE student.

Table 27
Favorite Foods and Eating Practices of ABE Students

	Indian	Percent	Non-Indian	Percent
Meat preferred:				
Pork	3	27.27	3	09.68
Beef	3	27.27	16	51.61
Fish	3	27.27	2	06.45
Wild meat	1	09.09	8	25.81
Other	1	09.09	1	03.23
No Response	<u>0</u> 11	00.00 99.99	<u>1</u> 31	$\frac{03.23}{100.01}$
Bread:				
Homemade	7	63.63	19	61.29
Commercial	1	09.09	2	06.45
No Response	<u>3</u> 11	27.27 99.99	<u>18</u> 31	$\frac{32.26}{100.00}$
Dessert:				
Homemade	9	81.81	26	83.87
Packaged or Ready Made	1	09.09	3	09.68
No Response	11	09.09 99.99	<u>2</u> 31	06.45 100.00

Table 27 continued

	Indian	Percent	Non-Indian	Percent
Salad:				
Normally eaten	9	81.81	22	70.97
Not eaten	<u>2</u>	18.18 99.99	<u>9</u> 31	29.03 100.00
Eaten before meal	0	00.00	<b>7</b> -	22.58
Eaten with meal	8	72.72	15	48.39
No Response	<u>3</u>	$\frac{27.27}{99.99}$	<u>9</u> 31	29.03 100.00
Vegetables preferred:				
Corn	6		17	
Peas	2		19	
Beans	2		8	
Carrots ·	3		8	
Beets	4		1	
Spinach	1		1	
Onions	1		0	
Asparagus	0		2	
Cauliflower	0		1	
Mustard	0		1	
All	3		3	

# Learning Progress Results

The results of the Follett ABE Student Survey pre-test and post-test were analyzed with the non-parametric Mann-Whitney U Test (see Appendix G, page 100). The difference in learning progress between the Indian and non-Indian students was not statistically significant at the .05 level of significance. The null hypothesis, that different cultural background factors were not sufficiently influential upon learning to produce significant differences in learning progress between Indian and non-Indian students in ABE, was accepted.

Table 28 shows the mean scores for each part of the Follett ABE Student Survey. The Data in Appendices A, B, and C (pages 87, 90, 91 respectively) are the full list of scores from the ABE Student Survey Test.

Table 28

Mean Scores From Follett ABE Student Survey
Measuring Learning Progress in Grade Level Gains

	Part I	Part II	Part III	Part IV	
	Reading Comprehension	Word Recognition	Arithmetic Computation	Arithmetic Problems	Average Total Gain
Indian (N=7	) + .69	+ .35	+1.07	+1.10	+ .80
Non-Indian (N=2	0) + .31	+ .36	+ .77	+ .77	+ .51
Total (N=27					

Table 29 shows the relationship of various age groups to the grade level increases from the ABE Student Survey. The difference of a few months in mean grade increase between the three age groups was not significant enough to influence the Indian and non-Indian group comparisons. However, over half of the Indian students in this phase of the study were in the 20-24 age group. That finding was consistent with the overall high performance of the Indian students shown in Table 28.

Table 29
Association of Age to Grade Increase

Age	Number of <u>Students</u>	Percent of N = 27	Mean Grade Increase Per Age Group
Under 20	6	22.22	+ .4
20 - 24	10	37.03	+ .8
25 +	11	40.47	+ .6
	N = 27	99.99	

Student response to the testing procedures was good, in spite of a general fear of tests and anxiety-producing structured situations. The results of each student's tests were made known to him as part of the class procedure. Many of the students took an interest in the results of their tests to the point of receiving learning motivation. Others viewed the test procedures as a judgment upon their personal sense of worth and had difficulty adjusting to the results. Several students with negative test results saw the experience as another failure and could not continue classroom work unitl encouraged by the teacher.

## Profiles of Particular Students

The following profiles of particular students, those three students in each group scoring at the extremes on the learning progress tests, summarized the findings related to the correlation between cultural backgrounds and learning progress.

## Low Scoring Indian Students

The Indian students with the lowest learning progress score illustrated more concretely than the other Indian students that cultural and environmental background factors could be influential in the learning process. This female student appeared to be one representative of the Indian group most influenced by native-American culture. The trend her background suggested was that she was rejecting the non-Indian education and social structures and "going Indian" to a greater extent than her Indian classmates. An Indian cultural influence was suggested by the following factors in her background: both parents were Crow Indians, her mother worked in politics, her father was a laborer, she preferred and attended the Native-American Church, participated in ceremonial games and dances (including the War Dance), lived on the reservation most of her life, desired to speak the Crow language, preferred the guitar and drums as instruments, and preferred the advice of a relative more than other listed.

Inconsistent responses on her questionnaire, that did not seem to fit the Indian culture influence pattern, were her choice of science as a favorite subject, English as the preferred language, and cafe work as the choice of occupations.

She did not list why she was enrolled in the ABE program, although she did plan to finish high school and hopefully attend college. Her learning progress result was one month less than the lowest result of the total group (N = 27). Additional responses that coincided more with the non-Indian group were the reading preference of comics, a low maximum weekly income and high numbers of hours viewing television.

In general, the other two low-scoring Indian students had fewer Native-American characteristics than the student with the lowest result. They did have both parents of Indian heritage, with some Crow and other Indian languages spoken in the home. They had a wide range in age, similar goals in the ABE program, owned vehicles made in the 1960's, and their fathers had unskilled and semi-skilled employment. The average number of persons in a family were five, living in five rooms.

# <u>High Scoring Indian Students</u>

The Indian student with the highest progress rate did not seem to fit any particular pattern, although he did have characteristics similar to other ABE students. He was 22 years old, married, lived off the reservation, his mother was of Cherokee heritage, and he did not participate in ceremonial games or dances. He owned the newest vehicle in the Indian group, a 1964 pickup truck, had been employed as a welder, his father was a semi-skilled worker, preferred the Republican party and, although he left school when in the eighth grade, he had never failed a grade. He came from a family of seven living in three rooms, left home for the Job Corps at age 18, planned to finish high school by getting a GED, and was now under a federal rehabilitation program. He

stated that he would go to a religious leader for problem counseling, even though his religion, which he attended weekly, was unlisted.

The other high scoring Indian students had similar characteristics with the following pertinent exceptions. They lived on reservations most of their lives, were born in Montana, had parents from several tribes, with one father being a tribal leader. All owned cars of early 1960 vintage and most were seeking a GED under a state welfare or federal program. The mean age of the high Indian students was 23 years. The high scoring students in this group were older than those in the non-Indian group. The highest grade progress gain of the total test group (N=27) was that of an Indian student.

## Low Scoring Non-Indian Students

Not enough distinguishing characteristics were available from this group to present a pattern distinguishable from ABE students in general. Apart from the Indian heritage, many of the characteristics of this group were similar to the characteristics of the high scoring Indian students.

The lowest scoring non-Indian student was male, age 20, born in Washington state, single, read comics, and revealed little of his religion, family background, or employment. He left school at grade 8, had repeated classes, did desire to finish high school, was under federal funding, listened to the radio eight hours per day, owned a 1958 car, and would go to his mother for problem counseling. The lowest non-Indian learning progress score was the lowest of the total test group (N = 27).

The other low scoring non-Indian students were also seeking a GED, under federal funding, would counsel with a parent, left school

about the ninth grade, but did not repeat classes. The parents were employed as salesmen and laborers. The students averaged 22 years of age and viewed about one hour less television than the Indian group did. The families averaged five persons in an average of six rooms.

# <u>High Scoring Non-Indian Students</u>

Again, there were not sufficient discriminating characteristics available from this group to present a pattern distinguishable from ABE students in general, and low scoring non-Indian students in particular.

The highest scoring student was male, age 20, from Washington state, single, from a family of five persons living in seven rooms. He left home at age 19, left school from the eighth grade, repeated grades, preferred reading magazines, and would remain in the ABE program until able to get a GED or job. One pertinent factor of this student was his father's employment as woods boss, a skilled position.

The other high non-Indian students were also seeking a GED for better employment, were of similar ages, single or divorced, did not own cars, were under the welfare program, left home at a similar age, and had fathers in skilled employment. The average number of persons in a family were seven, living in an average of seven rooms. The mean age of this group was 22 years.

# Curriculum Overview

The primary approach to curriculum in the Missoula ABE class focused on the concept of flexibility of the method to meet student needs. When the student entered the class, he was pre-tested and an

individual curriculum was jointly prescribed by the teacher and student.

Every effort and strategy was geared to the development of the individual's self-concept, the most recognized need of all ABE students.

The basic strategy in the class surveyed was to have the students experience practical learning situations and environments. A minimum of theory was taught in a minimum of formal classroom structure. The emphasis was on student responsibility for learning and development of those coping skills that would enable him to increase opportunities for a more productive, independent, responsible life.

Personal counseling was an important element of the ABE curriculum in Missoula. Both professional and student-intern counselors have been available to the students. Also, the students have been exposed to indirect group guidance in the form of classroom discussions on topics including personal hygiene, birth control, drug and venereal disease education, vocational guidance, and other areas of concern to adult students.

### CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

## Summary

One purpose of this study was to explore the cultural and environmental background factors of one ABE population and identify correlations
between the background factors and the learning progress of the adult
students. Another objective was to determine possible relationships
between the findings and ABE class curriculum.

The instruments used to accomplish these objectives were a cultural survey questionnaire, constructed for this study, and the Follett ABE Student Survey, measuring learning progress of adult students.

The responses to the questionnaire were analyzed on the basis of a comparison of Indian and non-Indian students in seven categories of cultural and environmental characteristics: Identification, Reservation, Social-Political, Education, Family, Economic-Employment, and Personal Preference and Practice. The results of the Follett ABE Student Survey were analyzed according to the Mann-Whitney U Test for non-parametric statistics.

In general, the study disclosed few marked differences between the Indian and non-Indian ABE student. The findings revealed very little difference between the Indian and non-Indian groups in the categories of general identification and social-political characteristics. The observable differences in the category of the educational characteristics were as follows: the Indian students repeated less grades in school, had more desire to attend college, preferred reading books rather than other available literature, and were more acquainted with the use of

languages other than English than were the non-Indian students. The non-Indian students preferred reading magazines. The family characteristics were also very similar with the following exceptions: there were more non-Indians still living at home, living in larger houses, although averaging smaller families. The only distinction of consequence in the category of economic-employment characteristics was that the Indian students had greater preference for outdoor work. Finally, in the category of personal preferences and practices, the main differences were expressed in the form of the Indian students making less frequent visits to the dentist, having a higher percentage of non-drinkers of alcohol, and having less preference for taking a personal problem to a professional counselor or parent.

## Conclusions

The study resulted in several inferences and conclusions. The working assumption of this study was that Indian students in the Missoula ABE class would require special curriculum procedures due to environmental disadvantages, cultural differences, and education deficiencies. This assumption was stated in the form of a null hypothesis that cultural and environmental background factors sufficiently influenced learning to produce significant differences in learning progress between Indian and non-Indian students in ABE. The findings indicated that the statistical difference in the learning progress was not significant between these two groups. Consequently, the null hypothesis was accepted.

The acceptance of this conclusion led to the assumption that other factors were more influential than the cultural and environmental

factors tested. The evidence pointed to the implication that the Indian students surveyed were acculturated to the extent of being competitive in the non-Indian school structures thus achieving slightly higher learning progress results. The large number of similar responses by both Indian and non-Indian students in each of the cultural and environmental categories (except the category of reservation characteristics) supported this implication. Similar responses on the questionnaire by both groups implied the acceptance of dominant non-Indian cultural values and goals by the Indian students. In addition, most of the differences, highlighted in the category of education, reinforced the acculturation concept.

Another aspect of this trend suggested by the findings was that persons from particular Indian tribes do better in the education style represented by the ABE class in Missoula.

The cultural and environmental background survey supported the conclusion that ABE students have the social and educational handicaps of low socio-economic backgrounds, yet they generally recognized the need for more basic coping skills to survive in our technological society. This exploratory study was relevant to the ABE curriculum in several areas.

Since the basic curriculum was individually planned, student interests found in the survey, such as sports, cars, games, reading materials, favorite subjects, types of favorite television programs, and music preferences, could facilitate the use of teaching media geared to utilize those interests and desires toward educational objectives planned by students and teacher. Motivation to learn

through interested participation and student interaction would be a necessity in ABE.

Discovery of different Indian tribes represented in the class could encourage study by the teacher and students of various tribal differences, unique offerings, and wisdom. The sue of tribal dances, games, arts and crafts could encourage Indian participation through the appreciation of Indian culture.

Discovering in this study that most students put heavy emphasis on enrolling to finish high school by getting a GED or to acquire the basic education necessary for job skill training could encourage increased exposure to vocational counseling and opportunities. The curriculum could include strategies to make the students more aware of the agencies (federal and state and local) that exist for them. Such a program could also include field trips to industries with potential job openings, experiences of job application and interviews, having business men visit the class, more exposure to Missoula Technical Center courses (such as business mathematics, typing, communications), and various types of consumer education.

Discovering, also, that many students are not politically minded, the curriculum could be related to local politics and political issues that directly affect the ABE student. The program could be opened to locate political figures willing to discuss such areas as rent control, concepts of authority, low-income group activity, and political power for the powerless. Indian students could be exposed to reservation leaders willing to speak to the political needs of the Indian.

Discovering no statistically significant difference in the learning progress results between Indian and non-Indian students could encourage continued emphasis upon the individualized instruction and learning program planning. The flexibility of that kind of a curriculum to meet personal needs increases the possibility that Indians will not be stereotyped or arbitrarily grouped but will be treated personally and sensitively.

A final conclusion was made that changes and modifications in the questionnaire were in order since all the information desired was not obtained with the instrument in its original form. The wording and design of four questions (numbers 13, 14, 15, and 41) were found to be inappropriate for ABE students. However, the observation was made that many of the students in both the Indian and non-Indian groups did not follow directions on several questions, other than those listed above. This observation indicated that instruments used with ABE students must be specifically designed to account for the educational limitations and unique cultural perspectives of the ABE population.

# Recommendations For Further Study

The following recommendations for future research are suggested by this exploratory study:

- A longitudinal study of learning progress in ABE based on monthly testing, including at least two types of adult-oriented tests.
   Emphasis should be placed on adult student self-image.
- 2. Research studies should be made in the general areas of ABE student attitudes toward education and adult student self-image as related to economic status and security, employment, and family structure.

3. Research should be conducted on the Indian students who were dropouts from ABE versus those that remain to complete the program. It should be directed towards ascertaining the differences between the two groups and strategies to reduce the dropout rate. The lack of concrete evidence pertaining to the Indian student and ABE led to this recommendation.

### BIBLIOGRAPHY

#### A. BOOKS

- Bateson, Gregory. Naven. Stanford, California: Stanford University Press, 1958.
- Bergerin, Paul. A Philosophy for Adult Education. New York: The Seabury Press, 1967.
- Boone, Edgar J., and Emily H. Quinn. <u>Curriculum Development in Adult Basic Education</u>. Chicago: Follett Publishing Company, 1967.
- Brameld, Theodore. Cultural Foundations of Education. New York: Harper and Brothers, Publishers, 1957.
- Brophy, William and Sophie D. Aberle. The Indian: America's Unfinished Business. Norman: University of Oklahoma Press, 1966.
- Bryde, John F. Modern Indian Psychology. Bureau of Indian Affairs, Experimental Text, 1967.
- The Sioux Indian Student: A Study of Scholastic Failure and Personality Conflict. Sponsored by the National Institute of Mental Health, 1966.
- Cahn, Edgar S. Our Brother's Keeper: The Indian in White America. New York: A New Community Press, 1969.
- Davis, Allison. <u>Social-Class Influences Upon Learning</u>. Cambridge: Harvard University Press, 1950.
- Harrington, Michael. The Other America. Baltimore, Maryland: Penquin Books, Inc., 1962.
- Hodgkinson, Harold L. Education in Social and Cultural Perspectives. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1962.
- Jensen, Gale, A. A. Liveright, and Wilbur Hallenbeck. Adult Education:
  Outlines of an Emerging Field of University Study. Adult Education
  Association of U.S.A., 1964.
- Kidd, J. R. How Adults Learn. New York: Association Press, 1969.
- Kozol, Jonathan. <u>Death at an Early Age</u>. New York: Houghton-Mifflin Company, 1967.
- Lanning, Frank W. and Wesley H. Many (Eds.). <u>Basic Education for the Disadvantaged Adult: Theory and Practice</u>. New York: Houghton-Mifflin Company, 1966.

- Liveright, A. A. A Study of Adult Education in the United States.

  Brookline, Massachusetts: Center for the Study of Liberal Education for Adults at Boston University, 1968.
- National Association for Public School Adult Education. Adult Basic Education: A Guide for Teacher Trainers. National Education Association, Washington, D. C., 1966
- National Association of Public School Adult Educators. When You're Teaching Adults. Adult Education Association of the U.S.A., 1201 16th Street, N.W., Washington, D. C., 1959.
- Nunney, Derek N. Adult Learning: A Critical Factor in De-escalating the Powerful Forces Which Perpetuate Under-Employment, Social Disorganization, Poverty and Despair in the Midst of our Affluent Society. Detroit, Michigan: Wayne State University, 1967.
- Office of Education, U. S. Department of Health and Welfare. <u>Curriculum Guide to Adult Basic Education: Beginning Level</u>. Washington: U. S. Government Printing Office, 1966.
- Office of Education, U. S. Department of Health and Welfare. <u>Curriculum Guide to Adult Basic Education: Intermediate Level</u>. Washington: U. S. Government Printing Office, 1966.
- Postman, Neil and Charles Weingartner. <u>Teaching as a Subversive Activity</u>. New York: Delacorte Press, 1969.
- Powers, Joseph F. <u>Brotherhood Through Education</u>: A <u>Guide for Teachers</u> of American Indians. Fayette, Iowa: Upper Iowa University.
- Riessman, Frank. <u>The Culturally Deprived Child</u>. New York: Harper and Row, Publishers, 1962.
- Roessel, Robert A., Jr. <u>Handbook for Indian Education</u>. American Indian Publishing Company, 1826 North Sierra Bonita, Los Angeles, California, 90046.
- Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Company, Inc., 1956.
- Spindler, George D. <u>Education and Anthropology</u>. Stanford, California: Stanford University Press, 1955.
- Education and Culture. New York: Holt, Rinehart and Winston, 1963.
- Steiner, Stan. The New Indians. New York: Harper and Row, 1968.
- Tyler, Ralph W. <u>Basic Principles of Curriculum and Instruction</u>. Chicago: University of Chicago Press, 1949.

- Webster, Steten W. The Disadvantaged Learner: Knowing, Understanding, Educating. San Francisco: Chandler Publishing Company, 1966.
- Zintz, Miles V. Education Across Cultures. 2nd ed. Dubuque, Iowa: Kendall-Hunt Publishing Company, 1969.

#### B. PERIODICALS

- Andersen, Clarence A. "In Adult Basic Reading Programs, Are We Teaching Students or Systems?" Adult Leadership, 16:179-181, November, 1967.
- Brockmann, C. Thomas. "Social Class and Educational Level on the Flathead Reservation," Journal of American Indian Education, 10:23-31, October, 1970.
- Bryde, John F. "A Rationale for Indian Education," <u>Journal of American</u> Indian Education, 8:11-14, January, 1969.
- Coombs, Madison. "The Indian Student is Not Low Man on the Totem Pole," Journal of American Indian Education, 9:1-9, May, 1970.
- Davis, G. S. "A Study of Classroom Factors Related to Dropouts," <u>Adult</u> <u>Education</u>, 17:38-40, Autumn, 1966.
- Dobbs, Ralph C. "Handles for Holding Power in Adult Teaching," Adult Leadership, 18:315-316, April, 1970.
- Haggstrom, Warren C. "Poverty and Adult Education," Adult Education, 15:145-160, Spring, 1965.
- Havighurst, Robert J. "Education Among the American Indians: Individual and Cultural Aspects," The Annals of the American Academy of Political and Social Science, 311:105-115, May, 1957.
- Hendrickson, Andrew. "Adult Learning and the Adult Learner," Adult Leadership, 14:254-256, February, 1966.
- Keeler, W. W. "Challenges in Indian Education," <u>Journal of American</u> Indian Education, 1:3-8, January, 1962.
- McNickle, D'Arcy. "The Sociocultural Setting of Indian Life," American Journal of Psychiatry, 125:219-223, 1968.
- Minton, Charles E. "On Values," <u>Journal of American Indian Education</u>, 2:19-24, May, 1963.
- Puder, William H. and S. E. Hand. "Personality Factors Which May Interfere With the Learning of American Basic Educational Students,"

  Adult Education, 18:81-93, Winter, 1968.

- Regan, Timothy F. "ESOL and the ABE Teacher," Adult Leadership, 18:57-58, June, 1969.
- Roessel, Robert A., Jr. "Indian Education in Arizona," <u>Journal of American Indian Education</u>, 1:33-38, 1961.
- Saslow, Harry L., and May J. Harnover. "Research on Psychosocial Adjustment of Indian Youth," American Journal of Psychiatry, 125:224-231, 1968.
- Shearon, Ronald W. "Evaluating ABE Programs," Adult Leadership, 19:15-16, May, 1970.
- Smith, Edwin H. "Adult Basic Education: Some Spin-Off for Culturally Deprived Youth Education," Adult Leadership, 269-270, February, 1971.
- Spindler, Louise S. and George D. "American Indian Personality Types and Their Sociocultural Roots," The Annals of the American Academy of Political and Social Science, 311:147-157, May, 1957.
- Vogt, Evon Z. "The Acculturation of American Indians," The Annals of the American Academy of Political and Social Science, 311:137-146, May, 1957.
- Vontress, Clemmont E. "Adult Life Styles: Implications for Education," Adult Leadership, 19:11-26, May, 1970.
- Wax, Murray and Rosalie. "Cultural Deprivation as an Educational Ideology," Journal of American Indian Education, 3:15-18, January, 1964.
- Whittmore, Robert G., Ben Pecheverria, and John Griffin. "Can We Use Existing Tests for American Basic Education?" Adult Education, 17:19-29, Autumn, 1966.
- Zahn, Jane C. "Differences Between Adults and Youth Affecting Learning," Adult Education, 17:67-77, Winter, 1967.
- "Some Adult Attitudes Affecting Learning: Powerlessness, Conflicting Needs, and Role Transition," Adult Education, 19:91-97, Winter, 1969.

### C. GOVERNMENT DOCUMENTS

Brown, Don A., and Anabel P. Newmann. A Literacy Program for Adult City-Core Illiterates: An Investigation of Experimental Factors Pertinent to Reading Instruction. U. S. Department of Health, Education and Welfare. Office of Education. October, 1968.

- Donahue, Don, and others. <u>Guidelines for Teaching the Under-Educated</u>
  Adult. State Office of Public Instruction. Olympia, Washington.
- Officer, James. An Overview of Current Needs in Indian Education. Report of Annual Conference of the Coordinating Council for Research in Indian Education. Department of Public Instruction. Phoenix, Arizona. 1963.
- Roessel, Robert A., Jr. Results of Current Research in Indian Education Performed by Arizona State University. Report of Annual Conference of the Coordinating Council for Research in Indian Education.

  Department of Public Instruction. Phoenix, Arizona. 1963.
- U.S. Department of Health, Education and Welfare. Office of Education.

  Adult Basic Education Program Statistics: Students and Staff Data.

  July 1, 1967 June 30, 1968. Published. 1969.
- U.S. Department of Health, Education and Welfare. Analysis of Seven Special Projects in American Basic Education. Washington, D. C.: G. E. Tempo and Company. 1969.
- U.S. Department of Health, Education and Welfare. Office of Education.

  Adult Basic Education Program Statistics: Students and Staff Data.

  July 1, 1968 June 30, 1969. Published. 1970.
- U.S. Department of Health, Education and Welfare. Office of Education.

  <u>A Lifetime of Learning</u>. Pamphlet. 1969.
- U.S. Congress. House. Message from the President of the United States.

  First Annual Report of the National Advisory Committee on American

  Basic Education. 90th Congress, 24th Session, Document No. 384.

  September 16, 1968. Washington: Government Printing Office.
- U.S. Congress. House. The Second Annual Report of the National Advisory Committee on American Basic Education. 91st Congress, 1st Session, Document No. 91-176. 1969. Washington: Government Printing Office.
- Warren, Virginia B. How Adults Can Learn More Faster. National Association for Public School Adult Education. National Education Association. 1961.

#### D. UNPUBLISHED MATERIAL

Allen, Ronald Lorraine. "A Study of the Characteristics of Successful and Unsuccessful Students Enrolled in the Adult Indian Training Program Conducted by the Adult Education Center of the University of Montana." Unpublished Doctor's dissertation, University of Montana, 1968.

- Berven, Irene. "History of Indian Education on the Flathead Reservation." Unpublished Master's Thesis, Montana State University, Missoula, 1959.
- Boyce, V. Milton, and others. "The Effect of Adult Basic Education on Selected Non-Cognitive Attributes." February, 1970. (Microfilm, ED 037 631.)
- Cincinnati Public Schools. "Adult Learning Laboratories in Adult Basic Education: For Use Without School Youth and Adults in Continuing Education Classes." Ohio, 1970. (Microfilm, ED 040 366.)
- Deligdisch, Andree. "Our Indian Neighbors." Independent Study for the Citizens' Committee on Great Falls Indian Affairs. Montana: College of Great Falls Press. 1964.
- Dutton, Marion Donnie. "A Description and Analysis of Selected Characteristics of Participants in Adult Basic Education in Hillsborough County, Florida." Unpublished Doctor's dissertation, Florida State University, 1967.
- Ehrbright, Richard M. "A Descriptive Study of Underachievers as Represented by Students Participating in the Upward Bound Program at the University of Montana." Unpublished Doctor's dissertation, University of Montana, 1969.
- ERIC Clearinghouse on Adult Education. "Abstracts of Papers Presented to the National Seminar on Adult Education Research." February 11-13, Chicago. Syracuse University, New York, 1968. (Microfilm, ED 024 001.)
- ERIC Clearinghouse on Adult Education. "Adult Basic Education." Current Information Service-27, Syracuse University, New York, March, 1970. (Microfilm, ED 035 777.)
- ERIC Clearinghouse on Adult Education. "Adult Learning Characteristics." Current Information Service-21, Syracuse University, New York, 1968. (Microfilm, ED 024 014.)
- ERIC Clearinghouse on Adult Education. "Residential Adult Education." Current Information Service-25, Syracuse University, New York, October, 1969. (Microfilm, ED 032 449.)
- ERIC Clearinghouse on Adult Education. "Self Concept in Adult Participation." Conference Report and Bibliography, November, 1969. (Microfilm, ED 033 252.)
- General Electric Company. "Analysis of Seven Special Projects in Adult Basic Education: Final Report." Washington, D. C.; G. E. Tempo and Company, November, 1969. (Microfilm, ED 040 372.)

- Hawkins, Dorothy Lee. "A Study of Dropouts in an American Basic Education Program and a General Education Development Program and Suggestions for Improving the Holding Power of These Programs."
  Unpublished Doctor's dissertation, Indiana University, 1968.
- Hayes, Arnold P. "New Dimensions in Adult Basic Education Research and Demonstration in Adult Basic Education." Adult Education Association of the U.S.A., Commission on Adult Basic Education, December, 1969.
- Johns, Irwin R. "Teacher-Student Relationships." A Report of Adult Basic Education Research Conducted at Florida State University, Tallahassee, 1969. (Microfilm, ED 041 197.)
- Lindskoey, Howard N. "Operation 'Relevance': A Pilot Project Conducted in Cooperation with the Economic and Youth Opportunity Agency and the County of Los Angeles." University of California, Institute of American Basic Education, 1970. (Microfilm, ED 037 658.)
- Lyndes, Julia O. "A Study of the Social-Class Backgrounds of Failing Students in Elementary Schools." Unpublished Master's Professional Paper, Montana State University, Missoula, 1959.
- Pattison, Rose Mary and Joseph C. Payne. "Evaluation Tools for Adult Education: Three Aids for Teachers and Counselors of Under-Educated Adults." Chicago, Illinois: Follett Publishing Company, 1968.
- Perryman, Bruce C. "State and Local American Basic Education Program Evaluation Survey for Wyoming." Wyoming State Department of Education, Cheyenne, 1969. (Microfilm, ED 035 838.)
- Pinnock, Theodore, and others. "Results of an Exploratory Study of Functional Illiterates in Macon County, Alabama." Tuskegee Institute, Alabama, 1966. (Microfilm, ED 010 123.)
- Renbarger, R. N. "An Experimental Investigation of the Relationship Between Self-Esteem and Academic Achievement in a Population of Disadvantaged Adults." Unpublished Doctor's dissertation, Michigan State University, 1969.
- Robison, R. S. "The Relationship Between Certain Environmental Factors and the Proficiency of Blackfeet Indian Children with Written English." Unpublished Master's Thesis, University of Montana, Missoula, 1967.
- Seeman, Don F., and others. "Behavioral Skills for Adult Basic Education." A Resource Document and Institute Report, Mississippi State University, Mississippi State College, November, 1969, (Microfilm, ED 034 143.)

- Sticht, Thomas G. "Learning Abilities of Disadvantaged." George Washington University, Alexandria, Virginia, March, 1969. (Microfilm, AD 688 811.)
- "Survey of American Basic Education in New Hampshire." National Association for Public School Adult Education. Washington, D. C., 1969. (Microfilm, ED 032 512.)
- Texas Educational Agency. "Teachers' Suggestions for Teaching Adults in American Basic Education." Austin, Texas, August, 1969. (Microfilm, ED 034 148.)
- Valland, Virgil A. and Curtis Trent (eds.). "Recruiting Students for Adult Education." Kansas State University, Manhattan School of Education, May, 1969. (Microfilm, ED 034 112.)

# APPENDIX A Follett Adult Basic Education Student Survey Scoring Chart

# READING COMPREHENSION

Cumulative

Grade

				Score	Equivalent	Percent	Score
				21	1.8	36	46
		tically constructed sta		22	1.9	36	46
normal se	core, based on a me	an of 50 and a stand	ard devia-	23	1.9	37	47
tion of 10	), that tells at a gland	ce whether it is a con	paratively	24	1.9	38	47
		distribution. For exa		25	2.0	39	47
score of	46 is .4 standard de	eviation below the n	nean; a T	26	2.0	39	47
		leviations above the	-	27	2.1	40	47
	02 10 172 Dianogia 0		,	28	2.1	42	48
				29	2.2	43	48
REAL	DING COME	PREHENSIO	N	30	2.2	44	48
	~ 1	~ 1	<i>_</i>	31	2.3	46	49
	$\mathbf{Grade}$	Cumulative	${f T}$	32	2.3	47	49
Score	Equivalent	Percent	Score	33	2.4	48	49
	•			34	2.4	49	50
0		14	_	35	2.5	50	50
1	1.1	15	39	36	2.5	51	50
2	1.2	16	40	37	2.6	51	50
3	1.2	18	40	38	2.6	52	50
4	1.3	20	41	39	2.7	53	51
5	1.3	22	42	40	2.7	54	51
6	1.3	23	42	41	2.8	55	51
7	1.4	24	43	42	2.8	56	51
8	1.4	2 <b>5</b>	43	43	2.9	57	52
9	1.4	26	43	44	2.9	58	52
10	1.5	27	44	45	3.0	59	52
11	1.5	27	44	46	3.1	59	52
12	1.5	28	44	47	3.2	60	53
13	1.6	29	44	48	3.3	61	53
14	1.6	30	45	49	3.4	63	53
15	1.6	31	45	50	3.5	64	53
16	1.7	32	45	51	3.6	65	54
17	1.7	33	45	52	3.7	66	54
18	1.7	34	46	53	3.8	67	54
19	1.8	35	46	<b>54</b>	3.9	69	55
20	1.8	35	46	55	4.0	71	55

# READING COMPREHENSION

# WORD RECOGNITION

Score	Grade Equivalent	Cumulative Percent	T Score	Score	Grade Equivalent	Cumulative Percent	T Score
56	4.2	73	56	26	4.8	71	55
57	4.4	75	56	27	4.9	73	56
58	4.6	76	57	28	5.0	74	56
59	4.8	77	57	29	5.2	76	57
60	5.0	80	58	30	5.4	78	57
61	5.2	82	59	31	5.6	83	59
62	5.5	84	60	32	5.8	84	60
63	5.8	87	61	33	5.9	85	60
64	6.0	90	62	34	6.0	90	62
65	6.5	95	64	35	6.5	94	64
66	7.1	97	68	36	7.0	97	67
67	7.5	98	70	37	7.5	98	70
68	7.9	100	73	38	7.9	100	73

# WORD RECOGNITION

# ARITHMETIC COMPUTATION

Score	Grade Equivalent	Cumulative Percent	T Score	Score	Grade Equivalent	Cumulative Percent	T Score
0	_	21		0	_	5	*****
1	1.0	24	42	1	1.0	6	34
2	1.3	26	43	2	1.2	7	35
3	1.5	30	44	3	1.4	8	36
4	1.7	34	45	4	1.5	10	37
5	1.8	37	46	5	1.6	11	37
6	1.9	39	47	6	1.7	12	38
7	2.0	40	47	7	1.8	14	39
8	2.5	42	48	8	1.9	15	39
9	3.1	43	48	9	2.1	17	40
10	3.2	44	48	10	2.2	20	41
11	3.3	47	49	11	2.4	21	42
12	3.4	49	49	12	2.5	22	42
13	3.5	50	50	13	2.5	23	42
14	3.6	51	50	14	2.6	24	43
15	3.7	54	51	15	2.7	26	43
16	3.8	55	51	16	2.8	29	44
17	3.9	56	51	17	2.9	30	45
18	4.0	58	<b>5</b> 2	18	3.0	31	45
19	4.1	59	52	19	3.1	32	45
20	4.2	61	53	20	3.2	. 33	45
21	4.3	62	53	21	3.2	34	46
22	4.4	64	53	22	3.3	35	46
22 23	4.5	65	54	23	3.4	36	46
23 24	4.6	66	54	24	3.5	37	47
24 25	4.7	69	55	25	3.5	38	47

# HMETIC COMPUTATION

# ARITHMETIC PROBLEMS

Grade Equivalent	Cumulative	T Score	Saara	Grade	Cumulative	T
Equivalent	Percent	Score	Score	Equivalent	Percent	Score
	4.6		0		27	
3.6	40	47	1	1.0	30	45
3.6	42	48	2	1.5	31	45
3.6	45	48	3	1.7	33	45
3.7	47	49	4	1.7	34	46
3.8	48	49	5	2.0	35	46
3.8	52	50	6	2.1	37	47
3.8	54	51	7	2.2	38	47
3.9	55	51	8	2.5	40	47
3.9	58	52	9	2.6	42	48
3.9	59	52	10	2.7	43	48
4.0	60	53	11	2.9	44	48
4.0	62	53	12	3.0	45	48
4.1	64	53	13	3.2	46	49
4.1	66	54	14	3.3	48	49
4.2	68	54	15	3.4	49	49
4.2	70	55	16	3.5	50	50
4.2	71	55	17	3.5 3.5	52	50
4.3	73	56	18	3.6	55	51
4.3	74	56	19	3.6	56	51
4.3	. 76	57	20	3.7	58	52
4.4	78	57	21	3.8	60	53
4.4	80	58	22	3.9	62	53
4.5	81	59	23	3.9	64	53
4.6	82	59	24	4.0	65 07	54
4.7	85	60	25	4.0	67	54
4.7	86	61	26	4.1	68	54
4.8	87	61	27	4.2	70	- 55
4.9	88	62	28	4.2	71	55
5.0	89	62	29	4.3	72	56
5.1	90	63	30	4.4	73	56
5.1	91	63	31	4.5	76	57
5.2	92	64	32	4.6	77	57
5.2	93	64	33	4.7	78	<b>57</b> .
5.3	94	65	34	4.8	82	59
5.3	95	66	35	4.9	84	60
		67	36	5.0	85	60
5.4 5.6	96 97	68	37	5.1	87	61
5.8	97	69	38	5.2	89	62
	97	69	39	5.3	90	63
5.9 6.0	98	70	40	5.4 <sub>.</sub>	91	63
6.0						
6.0	98	71	41	5.6	92	64
6.2	98	71	42	5.8	93	64
6.4	98	71	43	5.9	95	66
6.7	99	<b>7</b> 2	44	6.0	96 07	67
7.0	99	74	45	6.4	97	68
7.3	99	74	46	6.7	97	69
7.5	99	74	47	7.0	97	69
7.5	99	74	48	7.3	98	70
7.9	99	74	49	7.6	99	72
7.9	100	76	50	7.9	100	76

APPENDIX B

Pre-Test Scores of Adult Basic Education Students

Student Number:	Reading Comprehension Part I	Word Recognition Part II	Arithmetic Computation Part III	Arithmetic Problems Part IV
(Indian) 4 8 9 10 18	5.0 5.5 5.8 .0 5.8	5.8 6.0 7.5 .0 6.0	5.2 5.6 5.4 .0 5.1	4.9 4.9 5.3 .0 4.8
19 33 (Non-	6.5 7.5	7.5 7.0	4.7 5.1	4.9 7.0
Indian)  1 3 5 6 11 12 13 14 15 20 21 23 24 26 28 29 31 32 36	5.8 4.8 7.1 7.5 1.4 4.4 5.8 7.5 6.5 2.4 7.9 4.4 7.1 6.5 3.7 6.5	7.9 5.9 7.9 7.9 7.0 7.0 7.5 7.5 7.5 7.6 7.3 6.0	6.2 4.9 7.3 5.3 6.7 3.7 5.4 7.5 6.4 7.3 7.0 4.4 3.8 7.5 4.4 7.3	7.0 5.1 7.6 4.8 7.0 5.0 5.1 7.0 6.7 5.2 .0 6.7 7.3 4.9 4.3 7.0 4.0 7.3

Post-Test Scores of Adult Basic Education Students

Student Number:	Reading Comprehension Part I	Word Recognition Part II	Arithmetic Computation Part III	Arithmetic Problems Part IV
(Indian)				
4 9 10 18 19	6.5 6.5 7.5 1.6 7.1	7.5 6.5 6.5 .0 7.5	5.4 5.8 6.4 3.9 7.0	5.8 5.9 5.8 3.8 5.9
33	4.4 7.1	6.0 7.9	5.0 7.0	5.2 7.3
(Non- Indian)	7.3	7.5	7.9	7.9
3 5 6 11 12	5.8 7.5 5.8 7.9 1.4	6.0 7.9 7.5 7.5	5.8 6.7 7.0 7.3 5.2	5.4 7.0 7.3 7.6 4.2
13 14 15 20 21 23 24	6.5 6.5 7.1 7.1 5.8 1.7 5.8	5.6 5.9 6.5 7.5 5.6 3.4 7.5	6.0 4.9 7.9 7.0 5.8 3.2 7.0	6.0 5.6 7.0 7.6 4.7 3.5 7.0
26 28 29 31 32 36 40	7.5 7.1 7.5 7.5 2.7 7.9 7.9	7.9 7.5 7.5 7.9 3.8 7.9	7.5 4.6 4.3 6.7 4.7 7.5 7.5	7.6 4.9 4.4 7.3 3.8 7.6

APPENDIX D

Gain-Loss Results of Pre-Test/Post-Test Scores

of Adult Basic Education Students

_	Hours	Reading	Word	Arithmetic	Arithmetic	
Student Number:	in ABE	Comprehension Part I	Recognition Part II	Computation Part III	Problems Part IV	Gain Loss
- Number .	ADL	rait 1	Fait II	FOI C III	rait IV	
(Indian)						
4	164	+1.5	+1.7	+ .2	+ .9	+1.1
8	704	+1.0	+ .5	+ .2	+1.0	+ .7
9	360	+1.7	-1.0	-1.0	+ .5	+ .1
10	428	+1.6	.0	+3.9	+3.8	+2.3
18	384	+1.3	+].5	+2.0	+ .9	+1.4
19	141	-1.9	-1.5	+ .3	+ .3	7
33	368	4	+ .9	+1.9	+ .3	+ .7
(Non- Indian)						
1	284	+1.5	+ .5	+1.7	+ .9	+1.2
3	336	+1.0	+ .]	+ .9	+ .3	+ .6
5	228	4	+ .4	6	6	3
6	316	-1.3	+1.6	+2.3	+2.5	+1.6
11	40	+ .4	4	+6	+ .6	+ .3
12	448	.0	.0	+1.5	+4.2	+1.4
13	160	+2.1	.0	+ .7	+1.0	+1.0
14	688	+ .7	+ .3	5	+ .5 .0	+ .3 3
15	644	4	-1.0 +1.5	+ .4 +1.4	.0 + .9	+1.2
20	464	+1.1	-2.3	+ .4	5	8
21 23	304 832	7 7	+1.9	+1.7	+3.5	+1.6
23 24	104	-1.7	.0	3	+ .3	4
26	432	4	+ .4	+ .5	+ .3	+ .2
28	164	+2.7	+1.0	+ .2	.0	+1.0
29	200	+ .4	+1.0	+ .5	+ .1	+ .5
31	164	· +1.0	+ .4	<b></b> 8	+ .3	+ .3
32	596	-1.0	<b></b> 5	+ .3	2	4
36	144	+1.4	+1.9	+2	+ .3	+1.0
40	440	+ .4	.0	+1.1	+ .9	+ .6

#### APPENDIX E

# Questionnaire Analysis Categories

(Numbers Refer to Questionnaire Items)

### Identification Characteristics

- Sex
- 2. Age
- Birth place
- 4. Marital status
- 5. Father: nationality
- 6. Mother: nationality

### Reservation Characteristics

- 12. Ceremonial dances-participation
- 13. Living on/off reservation while age 0-5
- 14. Living on/off reservation while age 6-10
- 15. Living on/off reservation while age 10-20
- 62. Ceremonial games-participation

### Social and Political Characteristics

- 10. Church membership
- 11. Church attendance frequency
- 63. Presidential choice, 1968
- 64. Political party

### Educational Characteristics

- 24. Age entered school
- 25. Grade when left school
- 26. Grades repeated
- 27. Favorite subject
- 28. Reading material
- 29. Education of sexes
- 30. Desired termination
- 31. English as first language
- 32. English learned at what age
- 33. Languages spoken
- 34. Languages prefer to speak
- 35. Languages of parents
- 37. College choice
- 38. College where
- 39. Who pays fees
- 69. Why enroll ABE

### Family Characteristics

- 16. Age left home
- Destination when left
- 18. Rooms in home
- 19. Water in home
- 20. Phone in home
- 21. Electricity in home
- 22. Persons in home
- 23. Type home construction

### Economic and Employment Characteristics

- 7. Your type employment
- 8. Father's type employment
- 9. Mother's type employment
- 40. Job future
- 41. Work preference
- 42. Highest weekly income
- 43. Highest weekly income spouse
- 44. Highest weekly income together
- 45. Car
- 46. Car make and year
- 47. Present employment
- 48. Desired work plans
- 55. TV ownership

#### Personal Interests and Practices

- Personal problem counsel
- 49. Dentist
- 50. Doctor
- 51. Music preference
- 52. Music instrument preference
- 53. TV program preference
- 54. TV hours
- 56. Radio hours
- 57. Radio program preference
- 58. Alcohol preference: as drinker
- 59. Alcohol preference: type
- 60. Favorite beer
- 61. Favorite sport
- 62. Favorite tobacco
- 66. Favorite food
- 67. Favorite dessert
- 68. Favorite salad

### APPENDIX F

### QUESTIONNAIRE

Directions: Please answer all the questions that apply to you. Put a check mark where it is called for; write the word or phrase necessary to answer the other questions. If, for any reason, a question is not clear to you, ask the instructor for help. Sex: Male \_\_\_\_ Female 1. Birthdate: Day \_\_\_\_ Month \_\_\_ Year 2. Birthplace: State \_\_\_\_\_ County \_\_\_\_ 3. Are you Single \_\_\_\_ Married \_\_\_ Divorced \_\_\_ Remarried \_\_\_ Widowed \_\_? 4. (Check 2 answers if necessary) Your father's nationality or tribe? \_\_\_\_\_ Do not know\_\_\_\_. 5. Your mother's nationality or tribe? \_\_\_\_\_ Do not know\_\_\_\_. 6. What is your main type of employment? 7. What is your father's main type of employment? 8. What is your mother's main type of employment? 9. Roman Catholic \_\_\_\_ 10. Check your religious preference: Protestant Native American Church Other 11. How often do you attend religious services? (Check closest answer) Weekly Once per month Once per year Less than once a year If you are a tribal member, do you take part in ceremonial dances? 12. No Yes Which ones? Where did you live most of the time from your birth to age 5? (Check 13. one answer) (a) On a reservation \_\_\_\_\_ Not on a reservation \_\_\_\_ (b) Did you live in a rural area? No Yes If yes, what type? (Check one answer) Logging Mining Ranch Other (c) Did you live in a town? No Yes If yes, what size? (Check one answer) Under 500 Under 1,000 Under 2,500 Under 5,000 Over 10,000

14.	Where did you live most of the time from age 5 to age 10 years?  (a) On a reservation Not on a reservation (Check one answer.)
	(b) Did you live in a rural area? NoYes If yes, what type? (Check one answer) Logging Mining Ranch_ Farm_ Other
	(c) Did you live in a town? NoYes If yes, what size? (Check one answer) Under 500 Under 1,000 Under 2,500 Under 5,000 Under 10,000 Over 10,000
15.	Where did you live most of the time from age 10 to age 20 years?  (a) On a reservation Not on a reservation (Check one answer)
	(b) Did you live in a rural area? NoYesIf yes, what type?  (Check one answer) LoggingMiningRanchFarm Other
	(c) Did you live in a town? No Yes If yes, what size? (Check one answer) Under 500 Under 1,000 Under 2,500 Under 5,000 Under 10,000 Over 10,000
16.	At what age did you leave your family home? I left at age I did not leave
17.	Where did you go when you left home? (Check one answer) City Farm Ranch Boarding school Other
18.	How many rooms were there in your family home? (Circle the number below.) 1 2 3 4 5 6 If more, give number
19.	Did you have running water in your family home? No Yes
20.	Did you have a telephone in your family home? No Yes
21.	Did you have electricity in your family home? NoYes
22.	Who lived in your family home? (Check as many as necessary.)  Mother
23.	What type construction was your family home? (Check one answer) Stone or brick Wood frame Log Other
24.	At what age did you enter grade school?
25.	What grade were you attending when you had to leave school?

26.	Did you ever spend more than 1 year in each grade? No Yes
27.	What is your favorite subject? (Check one answer) MathScience Spelling Poetry Reading Geography Other
28.	Which of the following do you read <u>most?</u> (Check one answer) Books Magazines Comic books Newspapers None
29.	Education is most important for - (Check one answer)  A man A woman Both Neither
30.	Given a choice, would you attend school until you - (Check one answer) Were free to quit Felt like quitting Finished high school Could get a job
31.	Was English the first language you learned to speak? NoYes
32.	If you answered no to question 31, at about what age did you learn to speak English? (Check one answer)  Before school (age 1-6)  At school (age 7-9)  After age 9
33.	What languages do you now speak? (Please list)
34.	Which language do you prefer to speak?
35.	Did your parents speak a language other than English in your home?  No Yes Sometimes If yes, what language?
36.	To whom would you go for advice with a personal problem? (Check more than 1 answer if necessary) Father Mother Brother Sister Friend Other relative Counselor Religious leader Person not listed
37.	Do you want to go to college? No Yes
38.	If question 37 is answered <u>yes</u> , what college would you attend?
39.	Who is paying your fees for this class? (Please check one answer) I pay Parents Welfare Other federal funds Do not know
40.	Is there a job waiting for you after you complete this class? No  Yes If yes, where is it?

41.	What work do you like best? (Answer (a) OR (b) below)  (a) Indoor type: (Check one of these) Child care Housework  Office work Selling Cafe work Work with hands (carpenter, plumber, etc.) Other
	(b) <u>Outdoor</u> type: (Check one of these) Heavy machinery Ranching Farming Logging Mining Driving (car, truck) Other
42.	What was highest weekly income you have ever earned?
43.	What was the highest weekly income your spouse ever earned?
44.	What was the highest total weekly income you and your spouse earned at one time?
45.	Do you own a car? No Yes
46.	If you own a car, what is the make? What is the year?
47.	Are you working at the present time? No Yes
48.	Concerning plans you may have for future work: No plans See a,b,c (a) What kind of work? (b) Place of your work? (c) When will you begin?
50.	When did you last visit the doctor? (Check one answer) Within the past 3 months Within the past 6 months Within the past year Within the past 2 years None of the above
51.	What music do you like best? (Check one answer) Country Western Modern (popular) Rock Jazz Classical Other
52.	What is your favorite musical instrument?
53.	List your favorite T.V. programs. 1. 2. 3. 4. 5.
54.	About how many hours per day do you watch T. V.? (Circle the number)
	0 1 2 3 4 5 6 7 8 More than 8

55.	Is your T.V. (Check more than 1 if necessary) Portable Black- White Color No T.V
56.	About how many hours per day do you listen to the radio? (Circle the number) 0 1 2 3 4 5 6 7 8 More than 8
57.	Name your favorite radio program. No favorite Program name
58.	Check if you do not drink alcoholic beverages (If check here omit questions 59 & 60)
59.	What is your favorite alcoholic drink? (Check one answer) Beer Wine Scotch Bourbon Not listed (give name)
60.	What is your favorite brand of beer?
61.	What sport do you like best?
62.	If you are Indian, are you active in ceremonical games? NoYes
63.	Who was your favorite political candidate in 1968? (Check one answer) Wallace Nixon Humphrey McCarthy No favorite
64.	What is your political party? (Check one answer) Republican Democrat Independent Other No party
65.	If you use any of the following, please check and answer.  Cigarettes What brand?  Cigars What brand?  Pipe Tobacco What brand?  Chew Tobacco What brand?  Snuff What brand?
66.	What is your favorite food? (Check one in each group)  Meat: Pork Beef Fish Wild Meat Other  Bread: Homemade Store: White Wheat Raisin Other  Vegatables: (List up to 3)
67.	What is your favorite dessert? (Check one answer) Homemade From store
68.	Do you normally eat salad at home? No Yes If yes, is it before the meal or with the meal? What type dressing is used? French Cheese Other
69.	Why did you enroll in this class? (Check one answer)  To get a job

### APPENDIX G

# Mann-Whitney U Test for Statistical Analysis 1/

## Formula

$$U = n_1 n_2 + \frac{n_1(n_1 + 1)}{2} - R_1$$

OR

$$U = n_1 n_2 + \frac{n_2(n_2 + 1)}{2} - R_2$$

## Symbols

 $n_1$  = The number of cases in the smaller of two independent groups.

 $n_2$  = The number of cases in the larger group.

U = "The value of U (the statistic used in this test) is given by the number of times a score in the group with  $n_2$  cases precedes a score in the group with  $n_1$  cases in the ranking."<sup>2</sup>/

 $R_1$  = Sum of the ranks assigned to group  $n_1$ .

 $R_2$  = Sum of the ranks assigned to group  $n_2$ .

The Mann-Whitney U Test was used to accommodate a small sample composed of two independent groups of different sizes. This calculation was to determine the statistical significance of the Follett Student Survey results of the Indian and non-Indian groups.

<sup>1/</sup>Signey Siegal. Nonparametric Statistics for the Behavioral Sciences,
N.Y.: McGraw-Hill Book Company, Inc., 1956, pp. 116-127.
2/Ibid. p. 116.