



Ability to benefit : a credible basis for admissions to tribally controlled colleges  
by Sandra Lee Boham

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Education  
Montana State University

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Abstract:

The purpose of this study was to determine whether students at Salish Kootenai College who were admitted with a high school diploma or its equivalent (GED) have had greater success academically than students admitted under the special admissions category of "ability to benefit." Using a stratified random design, data were collected from college records that included the following variables: (1) GPA at the end of the first quarter of enrollment, (2) cumulative GPA at the end of enrollment, (3) number of quarters enrolled, and (4) number of quarters completed. These data were analyzed using analysis of variance at the .05 level of confidence. For comparison, percent of graduates, age, and gender data were collected and their frequency distributions were constructed.

The findings showed that first quarter and cumulative GPAs were affected by group affiliation. Students admitted under the ability to benefit averaged significantly lower GPAs (below 2.00) than those with a GED or a high school diploma. However, a meaningful number of those admitted under the ability to benefit did earn GPAs above 3.0. Also, number of quarters enrolled and completed were affected by group affiliation. Ability-to-benefit students and those with a high school diploma enrolled in and completed less than six quarters (the number required to obtain a degree), while GED students persisted long enough to obtain a degree. Since one determinant of success was completion of enough quarters to obtain either a degree (six quarters) or certificate (three quarters), persistence was not a determining factor in success. The frequency distribution for age indicated a much larger number of students admitted with a high school diploma (35%) in the 15-20 year age category than those with a GED (19%) or under the ability to benefit (17%). Gender breakdown showed 40% males and 60% females in all three subgroups; all subgroups performed poorly in terms of obtaining a degree/certificate.

Conclusions suggest that while ability-to-benefit students persist in school long enough to obtain a certificate, they do not remain long enough to obtain a degree. In any case, their average cumulative GPA was too low for them to remain academically qualified. While many students under the special admissions classification of ability to benefit do not perform well enough to succeed academically, others do quite well. The findings indicate that special support programs may be necessary for these students.

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FOR ADMISSIONS TO TRIBALLY  
CONTROLLED COLLEGES**

by

**Sandra Lee Boham**

**A thesis submitted in partial fulfillment  
of the requirements for the degree**

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Sandra Lee Boham

This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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## ABSTRACT

The purpose of this study was to determine whether students at Salish Kootenai College who were admitted with a high school diploma or its equivalent (GED) have had greater success academically than students admitted under the special admissions category of "ability to benefit." Using a stratified random design, data were collected from college records that included the following variables: (1) GPA at the end of the first quarter of enrollment, (2) cumulative GPA at the end of enrollment, (3) number of quarters enrolled, and (4) number of quarters completed. These data were analyzed using analysis of variance at the .05 level of confidence. For comparison, percent of graduates, age, and gender data were collected and their frequency distributions were constructed.

The findings showed that first quarter and cumulative GPAs were affected by group affiliation. Students admitted under the ability to benefit averaged significantly lower GPAs (below 2.00) than those with a GED or a high school diploma. However, a meaningful number of those admitted under the ability to benefit did earn GPAs above 3.0. Also, number of quarters enrolled and completed were affected by group affiliation. Ability-to-benefit students and those with a high school diploma enrolled in and completed less than six quarters (the number required to obtain a degree), while GED students persisted long enough to obtain a degree. Since one determinant of success was completion of enough quarters to obtain either a degree (six quarters) or certificate (three quarters), persistence was not a determining factor in success. The frequency distribution for age indicated a much larger number of students admitted with a high school diploma (35%) in the 15-20 year age category than those with a GED (19%) or under the ability to benefit (17%). Gender breakdown showed 40% males and 60% females in all three subgroups; all subgroups performed poorly in terms of obtaining a degree/certificate.

Conclusions suggest that while ability-to-benefit students persist in school long enough to obtain a certificate, they do not remain long enough to obtain a degree. In any case, their average cumulative GPA was too low for them to remain academically qualified. While many students under the special admissions classification of ability to benefit do not perform well enough to succeed academically, others do quite well. The findings indicate that special support programs may be necessary for these students.

## CHAPTER 1

### INTRODUCTION

Institutions of higher education in the United States are a diverse group having different curricula, student populations, and admissions criteria.

Some schools, such as two-year community colleges, are open-door institutions, requiring only that their applicants be at least eighteen years of age. A number of state universities require only evidence of high school graduation. Other schools determine eligibility for admission by an applicant's percentile ranking in high school, strength of secondary school preparation, grades, test scores, evidence of particularly well-developed skills and interests, written recommendations, intellectual curiosity and motivation, personal essays, and interviews. (Hargadon, 1981, p. 99)

The most common purpose for the establishment of admissions requirements is to assure the entry of students who have the capability to complete their educational program successfully (Quann & Associates, 1979). The most common requirement for admission is a high school diploma or its equivalent. Community colleges traditionally have admitted students under an open-door policy which accepts any high school graduate, GED recipient, or any adult who can benefit from instruction (Hargadon, 1981).

The American community college had its beginnings early in the twentieth century.

Several social forces contributed to its rise. Most prominent were the need for workers trained to operate the nation's expanding industries; the lengthened period of adolescence; and the drive for social equality, which supposedly would be enhanced if more people had access to higher education. (Cohen & Brawer, 1989, p. 1)

The community college was available to all persons, including minorities, women, and people who had done poorly in high school. Essentially, community colleges attracted those students for whom the possibility of higher education would not have been a possibility. The goal was to serve people and to provide access. The community college was developed to serve those who were not being accommodated by traditional institutions of higher education. "For most students in two-year institutions, the choice is not between community college and a senior residential institution; it is between the community college and nothing" (Cohen & Brawer, 1989, p. 47).

The most common purpose of admissions is to assure the entry of students who have the capability, or promise, of completing their chosen educational program successfully. Although some institutions with minimal or no requirements for admission stress the goal of opportunity for all, regardless of capability or promise, they assume a heavy burden of responsibility for helping poorly qualified students succeed and for giving them adequate support in selecting acceptable alternatives if they do not. (Quann & Associates, 1979, p. 33)

Nearly half of all minority students enrolled at institutions of higher education are enrolled in community college (Levin, 1986). There are disproportionately high numbers of minority students lost in the transition from high school to College (Astin, 1982). If these minority students are to have

access to higher education, the community college appears to be one of the avenues through which the question of access can be addressed.

One important barometer of equal opportunity is the accessibility of higher education to its potential clients. The existence of a nonselective, inexpensive college does increase the rate of college attendance in the surrounding area. The relationship between college location and equal opportunity is critical. (Willingham, 1970, p. 10)

"If there is no relationship between education and upward mobility, we feel that minorities ought to have an equal chance to be disappointed by the negative benefits to be derived from a college education" (Brown & Stent, 1935, p. 18).

#### Statement of the Problem

In a time when institutions of higher education are decreasing their enrollment and increasing their admissions criteria in an attempt to improve the quality of education, the practice of admitting students who do not possess a high school diploma or its equivalent is under criticism. The question addressed by this study was whether or not students at Montana's Salish Kootenai College who were admitted with a high school diploma or its equivalent have had greater success academically than those who were admitted under the special admissions category of "ability to benefit."

For purposes of this study, success was measured by analyzing the following data: (1) GPA at the end of the first quarter of enrollment, (2) cumulative GPA at the end of enrollment, (3) number of quarters enrolled,

and (4) number of quarters completed. In addition, percent of graduates, age, and gender were analyzed as intervening variables. Academic success at a tribal college such as Salish Kootenai College is to be interpreted in terms of the role and mission of tribal colleges and in view of the educational status of the majority of adults on the reservation. Maintaining an adequate GPA and staying in school long enough to complete a program is a major sign of academic success. A low GPA leads to disqualification for financial support and academic suspension within two or three quarters. A degree program demands the completion of six quarters. Thus, the four criteria listed above were used because of the interrelationship of GPA and quarters completed to academic success, i.e., staying in school long enough to complete a degree program.

#### Questions to Be Answered

The null hypotheses of this study were as follows:

- (1) There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special admissions category of ability to benefit, with respect to GPA at the end of the first quarter.
- (2) There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special

admissions category of ability to benefit, with respect to cumulative GPA at the end of enrollment.

- (3) There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special admissions category of ability to benefit, with respect to number of quarters enrolled.
- (4) There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special admissions category of ability to benefit, with respect to number of quarters completed.

Analysis of variance was selected as the statistical procedure to test the hypotheses because of the way this procedure treats means for stratified random samples. Number of graduates, age, and gender were reported in frequency distributions as intervening variables. Mean calculations and comparisons were not relevant with this type of data because, in the design of this study, absolute numbers were more revealing than statistical comparisons where these variables were concerned. An assumption basic to this study was that the researcher's position at the college enabled her to have insights into the unique character of the institution and conditions that affect student performance. These insights were used to interpret the findings and point out implications in the discussion section of Chapter 5.

## CHAPTER 2

### REVIEW OF THE LITERATURE

Salish Kootenai College is a tribally controlled community college offering associate of arts degrees, associate of applied science degrees, and certification programs. The college was established by official tribal action in November 1977. For three years prior to that date, Salish Kootenai College operated as a satellite center of Flathead Valley Community College of Kalispell, Montana (Salish Kootenai College, 1987). The city of Kalispell is located approximately 60 miles north of Pablo, Montana, the present site of Salish Kootenai College. Pablo, Montana is located on the Flathead Indian Reservation, which has a population of approximately 22,000 people, 8,400 of whom are of Indian descent. There are 6,548 enrolled members of the Confederated Salish and Kootenai Tribes of the Flathead Indian Reservation. Approximately 78% of the reservation's population are non-Indian; the remaining 22% are tribal members (Salish Kootenai College, 1987; Confederated Salish and Kootenai Tribes, 1989). The enrollment at Salish Kootenai College is 68% Indian and 32% non-Indian (Salish Kootenai College, 1989). Administrators and staff tend to be Native American; however, the faculty are almost exclusively non-Indian.

### History of the Problem

Historically, educational programs for Indian people, as implemented by the federal government and later educational programs in the public school systems at the elementary, secondary, and post-secondary levels, have been ineffective in providing education to Indian peoples on reservations (Szasz, 1977). "Education is often cited as the way out of the circle of discrimination and poverty faced by the minority groups, even though the present school structure does not appear to be promoting such a solution to discrimination" (Hanushek, 1972, p. 5).

Students who have a good self-concept will tend to achieve at higher levels than students with a poor self-concept or self-ideal. In a study conducted on the Red Lake Indian Reservation, the perceptions of Native American students of themselves as ideal students and their teachers' perceptions of them differed significantly. Native American students saw themselves as ideal students more often than did their teachers. It was further discovered that the students' definitions of "ideal" differed considerably from that of their teachers, and that the longer an instructor teaches on the reservation, the further from an ideal student (in terms of popularity) the Native American student becomes (Sullivan, 1979). "The development of a sense of efficacy and inner direction in the classroom is especially important for students from dominated groups" (Cumins, 1986, p. 29).



Expectations for success among Native American students have indicated that Native American students have lower expectations for success in the areas of education and employment than do non-Indian students. Further, Native American female students have lower expectations than do Native American male students (Peregoy, 1979). The lowered expectation for success, the lack of a sense of efficacy, and socioeconomic factors contribute to the high attrition rate of Native American students from high school (Bailey, 1978).

If one views the educational system as a kind of pipeline leading to positions of leadership and influence in our society, it is possible to identify five major leakage points at which disproportionately large numbers of minority group members drop out of the pipeline: completion of high school, entry to college, completion of college, entry to graduate or professional school, and completion of graduate or professional school. (Astin, 1982, p. 25)

Approximately 45% of Native American students will leave high school without graduating, approximately 17% of those who graduate from high school will enter college, approximately 6% of those who enter college will complete their college program, approximately 4% of those who complete their college program will enter graduate or professional school, and approximately 2% of those who enter graduate or professional school will complete their program of study (Astin, 1982, p. 174). Given the high attrition rate for Native American students at the high school level, bridging the gap between high school and higher education and overcoming negative perceptions of education in general are formidable tasks. In an attempt to address this

problem on the Flathead Indian Reservation, Salish Kootenai College was established. The mission statement of the college is reflective of this:

The mission of Salish Kootenai College is to provide quality post-secondary educational opportunities to Indian residents of the Flathead Indian Reservation. The college curriculum will reflect identified needs and interests of the Indian residents of the Flathead Indian Reservation by providing adult basic education, vocational education, academic, cultural and community interest programs, courses and activities. Assistance will be provided to tribal institutions and departments in staff preparation, planning, research, and evaluation services according to identified needs. The College will strive to provide opportunities for individual self-improvement for survival in a rapidly changing and technological world while maintaining the cultural integrity of the Salish and Kootenai people. The College is also committed to facilitating the post-secondary educational programs for Indians living throughout the ancestral homeland of the Salish and Kootenai People. (Salish Kootenai College, 1987, p. 13)

Although it is the primary purpose of Salish Kootenai College to meet the educational needs of the Indian population on the Flathead Indian Reservation, anyone who wishes to attend the school will be granted admission. The college therefore established a policy of "open-door" admissions. The most common type of admission policy employed at the community college is non-selective; this represents approximately 40% of total admissions policies (Quann & Associates, 1979). A community college is considered to have a non-selective admissions policy as long as the minimal requirement for admission is the possession of a high school diploma or its equivalent (Cohen & Brawer, 1989). Selective admissions policies require that in addition to the possession of a high school diploma or its equivalent, a student meet one or

more additional criteria. The additional criteria most often requested are a particular pattern of high school curriculum or a particular score on the SAT or ACT tests. These criteria are established to ensure that students admitted to the college will be academically prepared. There has been much discussion concerning the effectiveness of such criteria, particularly relative to the use of the SAT test. It has been suggested that the SAT more accurately reflects the socioeconomic status of the student's parents than it reflects the academic preparedness of the student (Crouse, 1988). If admissions policies are to operate successfully, they should directly reflect the institutional philosophy (Quann & Associates, 1979).

Because of the open-door admissions policy, anyone who is a graduate of an accredited high school or has a GED certificate and has applied for admission will be admitted to Salish Kootenai College. If an applicant for admission is at least 18 years of age and is neither a graduate of an accredited high school nor has received a GED certificate, the applicant may be admitted under the "ability to benefit" (benefit of educational profit) classification, as determined by a special admissions committee comprised of college staff and administration. If an applicant for admission is accepted under the ability-to-benefit category, the student then agrees to pursue a GED certificate while taking regular college courses. The ability to benefit is based on a determination that the applicant can benefit from college experience and deserves the opportunity to demonstrate his or her academic ability. Public

Law 99-498 (the Higher Education Act of 1965) ensures that students admitted under the ability to benefit would have access not only to higher education, but also to the same financial resources as regularly admitted students (i.e., government grants, but not the guaranteed student loan program as stated in the Amendments of 1986).

Studies have been conducted (Crossland, 1971; Crouse & Trusheim, 1988; Spillar, 1982) to determine the ability to predict academic success of students admitted to colleges who possess a high school diploma or GED certificate, but there is little information concerning the success rates of students admitted without these credentials. A search of the Educational Resources Information Center (ERIC) listings revealed only two information articles (Lee, 1986; Riddle, 1986) and no research studies relevant to the ability-to-benefit admissions criteria. Four-year institutions and most two-year institutions define "open-door" admissions as accepting students who possess a high school diploma or its equivalent. Of four-year colleges and universities responding to a survey conducted by The College Board, 5% of these institutions admit students who have a high school diploma or its equivalent. The remaining 95% maintain other standards for admission in addition to the requirement that an applicant possess a high school diploma or its equivalent. The additional requirements may include examination of the student's high school grade point average, test scores on SAT or ACT, enrollment in particular courses in high school curricula, and percentile ranking in high school (The College Board, 1987, p. 7).

Studies of the relationship between patterns of high school subjects and college grades indicate little or no relationship. Yet college faculty members remain convinced that such a relationship exists, and the insistence on, or at least the preference for, students with strong academic course patterns in high school is continuing. (Quann & Associates, 1979, p. 35)

The GED test was developed in the early 1940s by the United States Armed Forces. "The GED test has come to be accepted as a valid measure of skills and knowledge produced in typical high school curricula. It was designed to assess the lasting outcomes of a high school education" (Cervero, 1981, p. 71). Students who are admitted with a high school diploma or its equivalent could come from a homogeneous group when compared on the basis of grade point average in college, and persistence in college (satisfactory completion of quarters in which enrolled) (Spillar, 1982). The number of high school graduates has increased, yet "there are nearly sixty-five million people seventeen years of age and older who are not in school" (Cervero, 1981, p. 67).

The practice of admitting students to college without prior educational certification has been the concern of some individuals involved in higher education. Historically, community colleges have had some difficulties with high attrition rates, insufficient interest in occupational programs by the students, and difficulty meeting the needs of disadvantaged students. However, having a local community college approximately doubles the college attendance rate of local high school graduates (Willingham, 1970). These

difficulties are attributed to the fact that community colleges admit students who may not be academically prepared for college. In 1977, the average educational level attained by Native Americans was five years (Council on Interracial Books for Children, 1979). "The largest numbers of American Indians enrolled in college can be found in two-year colleges or community colleges, 0.7% compared to 0.4% of the national population" (Cabrera, 1978, p. 155). "The dropout rate of Native American high school students compared to the general population is high. College graduates and professionals is likewise much smaller" (Rhodes, 1988). Nationwide, from 1980 to 1984, undergraduate enrollment for Native Americans increased by only 1% (AACRAO, 1986). Given the fact that Indian students graduate at much lower rates from high school than non-Indian students and that it is the role of Salish Kootenai College to serve the educational needs of the adult population of the reservation, it is essential that Salish Kootenai College continue to admit students who do not possess a high school diploma or its equivalent.

Education beyond high school is a voluntary move to an institution somewhat unconnected with the secondary level, and there are many possibilities for de facto imbalances in opportunity associated with race, class strata, economic condition, and so forth. Such differences are extremely important because they carry with them the assumptions of underlying social restraints. Those restraints are commonly assumed to inhibit motivation and hamper individual freedom. (Willingham, 1970, p. 218)

## CHAPTER 3

### PROCEDURES AND METHODOLOGY

#### Population Studied

The population studied consisted of all students enrolled at Salish Kootenai College for one or more quarters during the academic years of 1978 through 1989. Student records that include the variables of: (1) GPA at the end of the first quarter of enrollment, (2) cumulative GPA at the end of enrollment, (3) number of quarters enrolled, (4) number of quarters completed, (5) number of graduates, (6) age, and (7) gender have been kept at Salish Kootenai College since its inception in 1978. At the time of this study, there were 6,000 such student records. Having assured confidentiality, the researcher was granted permission to review the Salish Kootenai College student records by Dr. Joseph F. McDonald, president of the college.

#### Data Collection

No listing of students had been kept of those admitted under the ability to benefit, GED, or high school diploma categories. In order to sample randomly the total admission records of the school, an assumption was made that the records contained equal distributions of student files in the following

categories: (1) students who were admitted with a high school diploma, (2) students who were admitted with a GED certificate, and (3) students who were admitted under the ability to benefit. This assumption was confirmed by personal observation of student records over a three-year period and by personal communication with Cleo Kenmille, who served as the registrar of Salish Kootenai College for four years. Proceeding under that assumption, a stratified random sampling technique was constructed that eliminated non-degree seeking students, non-certificate seeking students, part-time students, and students in certificate programs that were less than one year in length.

A sample of 100 student records was examined in each of the following three categories: (1) students admitted with a high school diploma, (2) students admitted with a GED certificate, and (3) students admitted under the ability to benefit. The following variables were used from each student record: (1) GPA at the end of the first quarter, (2) cumulative GPA at the end of enrollment, (3) number of quarters enrolled, (4) number of quarters completed, (5) number of graduates, (6) age, and (7) gender. Data for appropriate variables were entered into a Macintosh computer and the STAT-VIEW 512+ statistical software package was used to calculate appropriate analysis of variance. Frequency distributions were also calculated.



## CHAPTER 4

## ANALYSIS OF DATA

Findings

The mean and frequency distributions were revealing in that they described conditions of the entire population of students as much as or more than they described variation among the three subgroups. These findings are reported below for each of the three groups.

Hypothesis 1

*There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special admissions category of ability to benefit, with respect to GPA at the end of the first quarter.*

The mean first quarter GPAs for the three subgroups are reported in Table 1. Students admitted with a high school diploma had an average first quarter GPA of 2.572, with a standard deviation of 1.418 and a standard error of 0.142. Students admitted with a GED certificate had an average first quarter GPA of 2.195, with a standard deviation of 1.589 and a standard error of 0.159. Students admitted under the ability to benefit had an average first quarter GPA of 1.665, with a standard deviation of 1.513 and a standard error of 0.151.

The frequency distributions for the three subgroups are reported in Table 2. It is interesting to note that while the average first quarter GPA for students admitted under the ability to benefit was below 2.00, 33% maintained a GPA above 3.00.

Table 1. Mean first quarter GPA for students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Group	Mean	Standard Deviation	Standard Error
High school diploma	2.572	1.418	0.142
GED certificate	2.195	1.589	0.159
Ability to benefit	1.665	1.513	0.151

Table 2. First quarter GPA frequency distribution for students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

GPA Range	High School Diploma	GED Certificate	Ability to Benefit
0.0 - 0.5	18	29	38
0.5 - 1.0	0	0	2
1.0 - 1.5	4	5	7
1.5 - 2.0	4	4	4
2.0 - 2.5	7	7	12
2.5 - 3.0	13	9	4
3.0 - 3.5	18	13	18
3.5 - 4.0	13	13	7
4.0	23	20	8

Hypothesis 1 was tested using analysis of variance. The results showed an F-ratio of 9.124, with 2 degrees of freedom between groups and 297 degrees of freedom within groups. This was significant at the 0.05 level with a critical F-value of 3.03 (see Table 3). The results indicated that first quarter GPA was affected by group affiliation. Therefore, the null hypothesis was rejected.

Comparisons were made between individual groups using the Scheffe F-Test. There was no statistically significant difference in mean GPA between students admitted with a high school diploma and students admitted with a GED certificate ( $F = 1.559$ ). However, a statistically significant difference did exist between students admitted with a high school diploma and students admitted under the ability to benefit ( $F = 9.038$ ). Also, a statistically significant difference did exist between students admitted with a GED certificate and students admitted under the ability to benefit ( $F = 3.09$ ) (see Table 3). In both instances, the students admitted under the ability to benefit scored on the average lower first quarter GPAs than did students admitted with high school diplomas or students admitted with GED certificates. In fact, the mean first quarter GPA for students admitted under the ability to benefit (1.665), as calculated, was below the minimal 2.00 GPA required to remain academically qualified for continuance.

Table 3. Analysis of variance for first quarter GPA of students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Source	DF	Sum of Squares	Mean Square	F-Test
Between groups	2	41.508	20.754	9.124*
Within groups	297	675.581	2.275	
Total	299	717.089		
Comparison		Mean Difference	Scheffe F-Test	
Ability to benefit vs. GED		-.530	3.090*	
Ability to benefit vs. HS diploma		-.907	9.038*	
HS diploma vs. GED		-.377	1.559	

\*Significant at  $p = 0.05$ .

### Hypothesis 2

*There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special admissions category of ability to benefit, with respect to cumulative GPA at the end of enrollment.*

The mean cumulative GPAs for the three groups are reported in Table 4. Students admitted with a high school diploma had an average cumulative GPA of 2.76, with a standard deviation of 1.164 and a standard error of 0.116. Students admitted with a GED certificate had an average cumulative GPA of 2.558, with a standard deviation of 1.133 and a standard error of

0.113. Students admitted under the ability to benefit had an average cumulative GPA of 1.846, with a standard deviation of 1.302 and a standard error of 0.130.

Table 4. Mean cumulative GPA for students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Group	Mean	Standard Deviation	Standard Error
High school diploma	2.760	1.164	0.116
GED certificate	2.558	1.133	0.113
Ability to benefit	1.846	1.302	0.130

The frequency distributions for the three subgroups are reported in Table 5. It is interesting to note that while the average cumulative GPA for students admitted under the ability to benefit was below 2.00, 25% maintained a GPA above 3.00.

Hypothesis 2 was tested using analysis of variance. The results showed an F-ratio of 15.968, with 2 degrees of freedom between groups and 297 degrees of freedom within groups. This was significant at the 0.05 level, with a critical F-value of 3.03 (see Table 6). Cumulative GPA was affected by group affiliation. Therefore the null hypothesis was rejected.

Comparisons were made between individual groups using the Scheffe F-Test. There was no statistically significant difference in mean cumulative GPA between students admitted with a high school diploma and students

admitted with a GED certificate ( $F = 0.703$ ). However, a statistically significant difference did exist between students admitted with a high school diploma and students admitted under the ability to benefit ( $F = 14.462$ ). Also, a statistically significant difference did exist between students admitted with a GED certificate and students admitted under the ability to benefit ( $F = 8.788$ ) (see Table 6).

In both instances, the students admitted under the ability to benefit scored on the average lower cumulative GPAs than did either students admitted with high school diplomas or students admitted with GED certificates. In fact, the mean cumulative GPA for students admitted under the ability to benefit (1.846), as calculated, was below the minimal 2.00 GPA required to remain academically qualified for graduation.

Table 5. Cumulative GPA frequency distribution for students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

GPA Range	High School Diploma	GED Certificate	Ability to Benefit
0.0 - 0.5	8	10	21
0.5 - 1.0	3	1	11
1.0 - 1.5	3	4	7
1.5 - 2.0	9	9	13
2.0 - 2.5	9	15	8
2.5 - 3.0	11	17	15
3.0 - 3.5	24	20	11
3.5 - 4.0	26	20	14
4.0	7	4	0

Table 6. Analysis of variance for cumulative GPA of students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Source	DF	Sum of Squares	Mean Square	F-Test
Between groups	2	46.141	23.071	15.968*
Within groups	297	429.093	1.445	
Total	299	475.234		
Comparison		Mean Difference	Scheffe F-Test	
Ability to benefit vs. GED		-.713	8.788*	
Ability to benefit vs. HS diploma		-.914	14.462*	
HS diploma vs. GED		-.202	.703	

\*Significant at  $p = 0.05$ .

### Hypothesis 3

*There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special admissions category of ability to benefit, with respect to number of quarters enrolled.*

The mean number of quarters enrolled for the three groups are reported in Table 7. The frequency distributions are reported in Table 8. Students admitted with a high school diploma had an average number of quarters enrolled of five, with a standard deviation of 3.828 and a standard error of 0.383. Students admitted with a GED certificate had an average number of quarters enrolled of six, with a standard deviation of 4.416 and a standard

error of 0.442. Students admitted under the ability to benefit had an average number of quarters enrolled of four, with a standard deviation of 3.506 and a standard error of 0.351.

Table 7. Mean number of quarters enrolled for students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Group	Mean	Standard Deviation	Standard Error
High school diploma	5	3.828	0.383
GED certificate	6	4.416	0.442
Ability to benefit	4	3.506	0.351

Table 8. Frequency distribution for number of quarters enrolled for students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Range of Quarters	High School Diploma	GED Certificate	Ability to Benefit
1 - 3	40	40	52
3 - 6	32	23	22
6 - 9	15	15	15
9 - 12	4	9	7
12 - 15	7	7	2
15 - 18	1	4	1
18 - 21	0	1	1
21 - 24	1	1	0



Hypothesis 3 was tested using analysis of variance. The results showed an F-ratio of 5.242, with 2 degrees of freedom between groups and 297 degrees of freedom within groups. This was significant at the 0.05 level, with a critical F-value of 3.03 (see Table 9). The number of quarters enrolled was affected by group affiliation. Therefore, the null hypothesis was rejected.

Table 9. Analysis of variance for number of quarters enrolled for students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Source	DF	Sum of Squares	Mean Square	F-Test
Between groups	2	162.327	81.163	5.242*
Within groups	297	4598.260	15.482	
Total	299	4760.587		
Comparison		Mean Difference	Scheffe F-Test	
Ability to benefit vs. GED		-1.80	5.232*	
Ability to benefit vs. HS diploma		- .83	1.112	
HS diploma vs. GED		- .97	1.519	

\*Significant at  $p = 0.05$ .

Comparisons were made between individual groups using the Scheffe F-Test. There was no statistically significant difference in the mean number of quarters enrolled between students admitted with a high school diploma and students admitted with a GED certificate ( $F = 1.519$ ). Also, there was no statistically significant difference in the mean number of quarters enrolled

between students admitted with a high school diploma and students admitted under the ability to benefit ( $F = 1.112$ ). However, there was a statistically significant difference in the mean number of quarters enrolled between students admitted with a GED certificate and students admitted under the ability to benefit ( $F = 5.232$ ) (see Table 9).

#### Hypothesis 4

*There is no statistically significant difference among students admitted to Salish Kootenai College who possessed a high school diploma, a GED certificate, or who were admitted under the special admissions category of ability to benefit, with respect to number of quarters completed.*

The mean number of quarters completed for the three groups are reported in Table 10. The frequency distributions are reported in Table 11. Students admitted with a high school diploma had an average number of quarters completed of five, with a standard deviation of 3.613 and a standard error of 0.361. Students admitted with a GED had an average number of quarters completed of six, with a standard deviation of 4.243 and a standard error of 0.424. Students admitted under the ability to benefit had an average number of quarters completed of four, with a standard deviation of 3.470 and a standard error of 0.347.

Table 10. Mean number of quarters completed by students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Group	Mean	Standard Deviation	Standard Error
High school diploma	5	3.613	0.361
GED certificate	6	4.243	0.424
Ability to benefit	4	3.470	0.347

Table 11. Frequency distribution of number of quarters completed by students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Range of Quarters	High School Diploma	GED Certificate	Ability to Benefit
1 - 3	29	24	47
3 - 6	38	40	22
6 - 9	21	10	17
9 - 12	4	17	7
12 - 15	6	5	4
15 - 18	1	3	2
18 - 21	0	0	0
21 - 24	1	1	1

Hypothesis 4 was tested using analysis of variance. The results showed an F-ratio of 5.732, with 2 degrees of freedom between groups and 297 degrees of freedom within groups. This was significant at the 0.05 level, with a critical F-value of 3.03 (see Table 12). The number of quarters completed was affected by group affiliation. Therefore, the null hypothesis was rejected.

Comparisons were made between individual groups using the Scheffe F-Test. There was no statistically significant difference in the mean number of quarters completed between students admitted with a high school diploma and students admitted with a GED certificate ( $F = 1.086$ ). Also, there was no statistically significant difference in the mean number of quarters completed between students admitted with a high school diploma and students admitted under the ability to benefit ( $F = 1.811$ ). However, there was a statistically significant difference in mean number of quarters completed between students admitted with a GED certificate and students admitted under the ability to benefit ( $F = 5.701$ ) (see Table 12).

Table 12. Analysis of variance for number of quarters completed by students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Source	DF	Sum of Squares	Mean Square	F-Test
Between groups	2	164.687	82.343	5.732*
Within groups	297	4266.660	14.366	
Total	299	4431.347		
Comparison		Mean Difference	Scheffe F-Test	
Ability to benefit vs. GED		-1.81	5.701*	
Ability to benefit vs. HS diploma		-1.02	1.811	
HS diploma vs. GED		.79	1.086	

\*Significant at  $p = 0.05$ .

Frequency Distributions for  
Intervening Variables

Tables 13, 14, and 15 respectively report the frequency distributions for the intervening variables: (1) number of graduates, (2) age, and (3) gender. Of the students admitted with a high school diploma, the number of graduates was 17 out of the sample of 100 students; there were 15 graduates among students admitted with a GED; and 9 graduates among students admitted under the ability to benefit (see Table 13).

Table 13. Frequency distribution for number of graduates among students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Graduated	High School Diploma	GED Certificate	Ability to Benefit
Yes	17	15	9
No	83	85	91

The age distribution (Table 14) showed that students admitted with a high school diploma were younger, with 35 out of the sample of 100 students being between the ages of 15 and 20. Students admitted with a GED and those admitted under the ability to benefit had 17 and 19, respectively, in the 15 to 20 age category. Conversely, the GED group and the ability to benefit group were older, with 37 and 31 students, respectively, being above age 30; 19 students in the high school diploma group were above age 30.

Table 14. Frequency distribution for age of students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Range of Age (Years)	High School Diploma	GED Certificate	Ability to Benefit
15 - 20	35	17	19
20 - 25	21	24	25
25 - 30	25	22	25
30 - 35	10	16	15
35 - 40	4	8	3
40 - 45	3	7	9
45 - 50	1	3	1
50 - 55	1	3	3

The gender distribution (Table 15) showed a larger number of females attending Salish Kootenai College, with an almost even 60/40 female-to-male ratio in all three groups. Because 69% of the students were below 30 years of age, it can be assumed that many were mothers of young children.

Table 15. Frequency distribution for gender of students admitted: (a) with a high school diploma, (b) with a GED, and (c) under the ability to benefit.

Gender	High School Diploma	GED Certificate	Ability to Benefit
Male	39	40	40
Female	61	60	60

## CHAPTER 5

## SUMMARY, CONCLUSIONS AND DISCUSSION

Summary

The population for this study was comprised of all students who were full-time, degree-seeking students at the time of their admission to Salish Kootenai College since its inception in 1977. The objective was to evaluate whether students admitted with a high school diploma, with a GED certificate, or under the ability to benefit differed relative to: (1) GPA at the end of the first quarter, (2) cumulative GPA, (3) number of quarters enrolled, (4) number of quarters completed; and whether these groups differed according to: (1) age, (2) gender, and (3) number of graduates.

The intent was to determine if students admitted under the special category of "ability to benefit" performed as well as those students who were admitted with a high school diploma or those students who were admitted with a GED certificate. However, all three subgroups were compared among each other. The students who were admitted under the ability to benefit had significantly lower first quarter GPAs than either the students who were admitted with a high school diploma or those with a GED certificate. In fact, 52% scored a GPA below 2.00, thus failing to achieve an average GPA

acceptable for continuance. However, the fact that 33% achieved a GPA of 3.00 or better should not be overlooked. There was no significant difference between students admitted with a high school diploma and those admitted with a GED certificate. Students who were admitted with a high school diploma or a GED certificate received, on the average, passing marks (above 2.00), with the high school diploma group receiving slightly higher marks than the GED group.

The results of cumulative GPA analysis were essentially the same as the results of first quarter GPA analysis; students who were admitted under the ability to benefit failed to achieve an average passing grade, while students admitted with a high school diploma and students admitted with a GED certificate did receive average passing grades. Students admitted with a high school diploma received slightly higher grades than did students admitted with a GED certificate. Again, a meaningful number (25%) of those admitted under the ability to benefit did earn a cumulative GPA of 3.0 or better.

The analysis of the number of quarters enrolled revealed that, on the average, no individual subgroup had a problem staying in school long enough to obtain a certificate (an academic program lasting one year in length). However, students admitted with a high school diploma and students admitted under the ability to benefit did not persist long enough to obtain a degree; that is, an academic program lasting two years in length. Only the students admitted with a GED certificate persisted long enough to obtain a



degree. Students who were admitted under the ability to benefit were enrolled an average of four quarters, those admitted with a high school diploma were enrolled an average of five quarters, and students admitted with a GED certificate were enrolled an average of six quarters. There was a statistically significant difference in the mean number of quarters enrolled between students admitted under the ability to benefit (four quarters) and students who were admitted with a GED certificate (six quarters). These results demonstrate a practical difference in determining the academic success or failure of any individual subgroup.

The results of the analysis of number of quarters completed are essentially the same as the results of the number of quarters enrolled analysis. No individual subgroup had a problem completing enough quarters to earn a certificate. However, students admitted with a high school diploma and students admitted under the ability to benefit did not persist long enough to obtain a degree. Only students admitted with a GED certificate persisted long enough to obtain a degree. Students who were admitted under the ability to benefit completed an average of four quarters, students who were admitted with a high school diploma completed an average of five quarters, and students who were admitted with a GED certificate completed an average of six quarters.

There was a statistically significant difference in the mean number of quarters completed between students who were admitted under the ability to

benefit (four) and students who were admitted with a GED certificate (six). These results effectively demonstrate a difference that describes number of quarters completed to be a problem in determining academic success or failure of any individual subgroup.

Those students admitted with a high school diploma and those admitted under the ability to benefit look essentially alike in terms of number of quarters enrolled and number of quarters completed. This seems unusual given the differences already established, and may be attributed to the likelihood that those admitted with a high school diploma remain at Salish Kootenai College for only three quarters because they may transfer to four-year institutions. In comparison, those admitted under the ability to benefit either complete their certificate programs, drop out, or become academically disqualified for continuance. Financial aid regulations allow two quarters of academically unsatisfactory work, after which the student is no longer eligible to receive funding. Academic regulations allow three quarters of academically unsatisfactory work, after which the student may be subject to academic dismissal.

There was a marked difference in frequency distribution, with 35% of students who were admitted with a high school diploma falling within the 15 to 20 year-old category, while students who were admitted with a GED certificate and students who were admitted under the ability to benefit had only 17% and 19%, respectively, in the 15 to 20 year-old category.

Clearly, larger numbers of students who have graduated from high school attend college shortly afterwards, while students who have received a GED certificate or have no certificate choose to wait three to four years before beginning college. This three to four-year age difference can often bring with it sets of circumstances, such as marriage and children, that make success in college more difficult for the older student unless support services such as daycare, marriage counseling, and/or additional financial aid are available (Wright, 1987).

The gender breakdown for all three subgroups was remarkably similar. There was a nearly even 40%/60% split, with males accounting for 40% and females accounting for 60%. Given that females are usually the primary caregivers in a family situation, this gender breakdown can be an important consideration when planning support services for the student body at Salish Kootenai College.

Students in all three subgroups performed dismally in terms of obtaining a degree or certificate. Only 17% of students who were admitted with a high school diploma achieved a degree/certificate. Students who were admitted with a GED fared slightly worse, with only 15% receiving a degree/certificate. Only 9% of the students admitted under the ability to benefit obtained a degree/certificate.

### Conclusions

Given the relatively homogeneous nature of the three subgroups relative to number of quarters enrolled, number of quarters completed, and gender, one might attribute any difference in academic success to readiness (preparedness) for college. It would then be easily assumed that students admitted with a high school diploma would fare somewhat better than students admitted with a GED certificate, and that students admitted with a GED certificate would fare better than students admitted under the ability to benefit.

In terms of hypotheses dealing with grade point average relative to first quarter and cumulative GPA as a measure of academic success, the above assumption does indeed hold true of those admitted under the ability to benefit. In fact, 51% of the students who were admitted under the ability to benefit failed to achieve a passing grade point average in the first quarter of enrollment and 39% cumulatively. It should be noted that although, as a group, students who were admitted with a GED certificate performed well enough to pass, their grade point average was still slightly lower than the grade point average for students admitted with a high school diploma.

The statistics relative to number of quarters completed did not indicate that staying in school long enough to complete an academic program of one year in length was a problem for any of the three subgroups. However,

staying in school long enough to complete an academic program two years in length was a problem for students admitted with a high school diploma and students admitted under the ability to benefit; only those students admitted with a GED certificate persisted in school long enough to be successful (i.e., to be enrolled in and complete enough quarters to theoretically complete an academic program two years in length). Nevertheless, inability to maintain an academically successful grade point average was a problem for approximately half of the students admitted under the ability to benefit.

#### Discussion

Given that the students comprising the ability-to-benefit group are knowingly admitted without academic credentials, a high school diploma, or a GED certificate (that might indicate reasonable college preparatory experience), one might expect this group not to perform well academically. This study confirmed this fact but indicated that the question to be addressed, then, is not the lack of preparedness of the student, but the past and current inability of Salish Kootenai College to deal effectively with the lack of preparedness of these students.

Salish Kootenai College is a developing institution; it has been in existence for only 10 years. As a young institution, it is attempting to develop admissions policies, support services, and programs to assist students in realizing their academic potential. Research has suggested that academically underprepared students, ethnic minorities, Native American women, older

students, first-generation college students, and economically disadvantaged students all have negative relationships with regard to college success as measured by GPA and persistence rates (Astin, 1982; Bailey, 1978; Crossland, 1971; Hanushek, 1972). However, the physical location and population demographics of Salish Kootenai College require that it serve precisely the above described population.

There is obviously some variation among the three subgroups studied. Among all the statistics comparing the three subgroups, it is clear that the majority of students who were admitted under the special admissions classification of ability to benefit needed additional support beyond admissions in order to be truly successful and to take full advantage of the opportunity that a special admissions provides them at Salish Kootenai College. Yet, it appears (based on low GPAs and persistence rates) that students admitted under the ability to benefit special admissions classification have been treated without regard to their special admissions status.

The overall lack of success that students admitted under the ability to benefit admissions classification experience has implications for student services. Special support services for these students may help ensure their success. Students admitted under the ability to benefit should be identified, assigned an advisor sensitive to their admissions status, placed in appropriate remedial/preparatory classes (a placement assessment for math, English, and reading is conducted for each student as part of the admissions process),

and be required to attend appropriate tutorial and learning skills sessions. In addition, the college should provide appropriate resource persons to address life skills areas to better help the student cope with the stress of academic and family life. Positive self-concept, ability to understand and deal with racism, long-range goal planning, availability of a strong support person, successful leadership experience, and demonstrated community service are additional areas where students can receive support to improve their success levels (Bailey, 1978). Programs that include these elements and others have demonstrated the facilitation of academic success among students who are admitted that are lacking in adequate preparation for the academic rigors of college life (Habley, 1981; McDermott et al., 1982; Trippi & Cheatham, 1989; Wright, 1987).

Adequate financial support in the form of financial aid programs also plays a significant role in the success rates of college students. The pattern of decreased availability of Bureau of Indian Affairs (BIA) higher education and adult vocational training grants for students, as well as decreased federal financial aid in the form of grants, may account for some of the low persistence rates.

GED preparation and adult basic education courses are not eligible for reimbursement through a student's financial aid package. Students must then enroll for at least the minimum credit requirement of the funding agency for full-time status (12 credits or more) to receive the maximum financial aid grant

available as well as complete the adult basic education courses or GED preparation courses necessary to improve their skills to a level acceptable for college (Grites, 1982). In the case of the ability-to-benefit student, the GED certificate must be obtained in two quarters in order to maintain eligibility for federal financial aid programs (NASFAA, 1984).

The policy of admitting students who do not have a high school diploma or GED certificate does address the issue of access to higher education by underrepresented groups. Minority students are more likely to persist at moderately selective colleges, whereas most dropouts occur at institutions such as junior or community colleges with low selectivity (Astin, 1982; Bailey, 1978). Moderately selective colleges are those which implement assessment and provide counseling to individuals within special admissions categories.

Salish Kootenai College fills a special need for higher education on the Flathead Indian Reservation by providing the opportunity for exposure to college for many individuals who otherwise would not be granted that opportunity. This study reveals a need for Salish Kootenai College to review its current admissions policy and to examine the area of student services. To increase persistence rates and improve academic success of students (as measured by GPA), it may be necessary to implement an admissions policy which acknowledges the differences among students admitted under the ability to benefit policy. This study has indicated that some students do quite well academically. This also suggests that the area of student services should



be evaluated to encompass student needs relative to the college's particular student population. (Some are older students, academically underprepared, economically disadvantaged, and/or first-generation college students.)

Further study of the effects of various admissions policies on Native American students, as they relate to predictions of persistence and academic achievement is also recommended. Developing an admissions policy which not only provides access but also a prescription for success is crucial.

REFERENCES

## REFERENCES

- American Association of Collegiate Registrars and Admissions Officers (AACRAO). (1980). Handbook 1980: Data and definitions. College Park, MD: Author.
- American Association of Collegiate Registrars and Admissions Officers (AACRAO). (1986). Demographics, standards, and equity: Challenges in college admissions. College Park, MD: Author.
- American Association of Collegiate Registrars and Admissions Officers (AACRAO). (1987). Legal guide for admissions officers and registrars. College Park, MD: Author.
- Astin, A.W. (1982). Minorities in higher education. San Francisco: Jossey-Bass, Inc., Publishers.
- Bailey, R.L. (1978). Minority admissions. Lexington, MA: D.C. Heath & Company.
- Brown, F., & Stent, M. (1935). Minorities in the U.S. institutions of higher education. New York: Praeger Publishers.
- Cabrera, Y.A. (1978). Minorities in higher education: Chicanos and others. Niwot, CO: Sierra Publications.
- Cervero, R.N. (1981, Winter). Assessment in adult education: A comparison of the APL and GED tests. Adult Education, 31(2), 67-83.
- Cohen, A.M., & Brawer, F.B. (1989). The American community college. San Francisco: Jossey-Bass, Inc., Publishers.
- The College Board. (1987). Annual survey of colleges, 1986-1987: Summary of statistics. Princeton, NJ: Author.
- Confederated Salish and Kootenai Tribes. (1989). Tribal enrollment book. Pablo, MT: Char-Koosta Printing.

- The Council on Interracial Books for Children. (1979). Chronicles of American Indian protest. New York: Author.
- Crossland, F.E. (1971). Minority access to college: A Ford Foundation report. New York: Schocken Books.
- Crouse, J., & Trusheim, D. (1988). The case against the SAT. Chicago: University of Chicago Press.
- Cumins, J. (1986, February). Empowering minority students. Harvard Educational Review, 56(1), 18-36.
- Grites, T.J. (1982). Advising for special populations. In R. Winston et al. (Eds.), Developmental approaches to academic advising (pp. 343-349). San Francisco: Jossey-Bass, Inc., Publishers.
- Habley, W.R. (1981). Academic advisement: The critical link in student retention. NASYA Journal, 18(4), 45-50.
- Hanushek, E.A. (1972). Education and race: An analysis of the educational production process. Lexington, MA: D.C. Heath & Company.
- Hargadon, F. (1981). Institutional autonomy and responsibility: New directions for testing and measurement. San Francisco: Jossey-Bass, Inc., Publishers.
- Hogan, W.T. (1979). American Indians. Chicago: University of Chicago Press.
- Lee, J. (1986, November). Serving high-risk students: Who really pays? Career Training, 3(2), 12-13.
- Levin, H.M. (1986). Educational reform for disadvantaged students: An emerging crisis. West Haven, CT: National Education Association of the U.S.
- McDermott, L.L., Rosenquist, M.L., & VanZee, E.H. (1982). Strategies to improve the performances of minority students in the sciences. In J.H. Cones & N.D. Janha (Eds.), Teaching minority students: New directions for teaching and learning, No. 16 (pp. 59-72). San Francisco: Jossey-Bass, Inc., Publishers.
- National Association of Student Financial Aid Administrators (NASFAA). (1984). Encyclopedia of student financial aid. Washington, DC: Author.

- Peregoy, R.M. (1979). Educational and occupational expectations of high school students on the Flathead Indian Reservation. Unpublished doctoral dissertation, Montana State University, Bozeman.
- Quann, C.J., & Associates. (1979). Admissions, academic records, and registrar services: A handbook of policies and procedures. San Francisco: Jossey-Bass, Inc., Publishers.
- Rhodes, R.W. (1988). Holistic teaching, learning for Native American students. Journal of American Indian Education, 27(1), 14-21.
- Riddle, W. (1986, Spring). A discussion and analysis of the 'ability to benefit' provisions in Title IV. Journal of Student Financial Aid, 16(1), 4-16.
- Rouche, J.E. (1984, April). Between a rock and a hard place. Community and Junior College Journal, 54(7), 21-24.
- Salish Kootenai College. (1987). Salish Kootenai College catalog, 1987-1989. Pablo, MT: Char-Koosta Printing.
- Salish Kootenai College. (1989). Salish Kootenai College self study. Pablo, MT: Char-Koosta Printing.
- Spillar, W.T. (1982). A comparison of scholastic success of community college students admitted on the basis of alternative admissions requirements. Unpublished doctoral dissertation, Texas A&M University, College Station.
- Sullivan, J.L. (1979). Perceptions of students' self and ideal-self by teachers and students at the Red Lake Indian Reservation. Unpublished masters thesis, University of North Dakota.
- Szasz, M.C. (1977). Education and the American Indian: The road to self-determination since 1928. Albuquerque, NM: University of New Mexico Press.
- Trippi, J., & Cheatham, H.E. (1989, January). Effects of special counseling programs for black freshmen on a predominately white campus. Journal of College Student Development, 30(1), 35-40.
- Wiersma, W. (1986). Research methods in education: An introduction. Boston: Allyn & Bacon, Inc.

Willingham, W.W. (1970). Free-access higher education. New York: The College Entrance Examination Board.

Wright, D.J. (1987, Summer). Minority students: Developmental beginnings. In D.J. Wright (Ed.), Responding to the needs of minority students: New directions for student services, No. 38 (pp. 5-21). San Francisco: Jossey-Bass, Inc., Publishers.

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