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College Achievement Among Sioux and White South Dakota Students

Terry E. Huffman, Maurice L. Sill, and Martin Brokenleg

This investigation relates several social, cultural, and aspirational factors to college achievement among Sioux and white students. Analysis indicated that college achievement for whites is related to social factors, such as, high school GPA and parental encouragement to attend school, whereas, retention of native cultural traditions seems to contribute to higher educational success for Sioux students.

IN THE LAST TWENTY YEARS there has been a great increase in the number of Native Americans entering institutions of higher education (Havighurst, 1978). However, it has been estimated that, in some institutions, the attrition rate for these students is as high as 85% (Jeanotte, 1981).

Earlier studies have offered a variety of explanations for the low academic achievement among Native Americans. Most common among these explanations have been inadequate primary and secondary education, low achievement motivation, low competition motivation, and low family value on education (Chadwick, 1972; Havighurst, 1957; Levitan and Hetrick, 1971; and Reboussin and Goldstein, 1966). However, Harold R. Kerbo (1981) did not find a relationship between these factors and higher educational success among Native Americans. Several factors have been found to be related to college achievement in general, such as, family SES, high school GPA, and parent's educational level (Sewell and Shah, 1967). But these factors too have been poor predictors of Native American college achievement (Steiner, 1968; Carroll, 1978).

There are, of course, numerous factors involved in the success or failure of a college endeavor. While in college Native American and white students attempt to attain the same goal, namely a college education. Although generally these students are affected by many of the same factors during their academic pursuit, these factors may affect them in different ways.

For white students the college setting is simply an extension of the educational social institution of their culture. The college institution reflects the dominant society's white middle-class values and, by and large, reinforces these or prevailing attitudes. White students starting college are not entering an alien cultural milieu but rather are moving deeper into the milieu of their

own culture. The major challenges facing white students are not likely to be cultural concerns but social concerns.

Native American students, on the other hand, tend to bring to college a strong sense of their cultural identity and are generally (although not always) oriented toward a set of values and goals which are different from those institutionalized in the college or university (Edgewater, 1981). The potential for cultural conflict can be enormous (Witt, 1980). A number of Native American students believe they are threatened with losing their "Indianness" through absorption into the "mainstream" college setting. As a result, many of these students leave school. In extreme cases students adhere so tenaciously to what they consider to be traditional Native American culture that it is impossible for them to interact successfully at college and, consequently, are also destined for failure (Steiner, et. al.). The challenge for Native American students becomes the ability to interact on two cultural levels simultaneously (Hallowell, 1963; Sill, 1967). That is, successful performance in college requires dual operation at a Native American cultural and a college mainstream level.

This study is an attempt to investigate and compare several of the social, cultural, and aspirational factors related to college achievement among Sioux and white students. Sioux students were further differentiated into "traditional" and "non-traditional" categories. "Traditional" refers to those students who follow more closely native cultural traditions as opposed to those "non-traditional" students who do not. It was hypothesized that social factors would be more predictive of college achievement for white students; cultural factors more predictive for Sioux students; whereas, aspirational factors would relate about equally for both.

Method

The Population

The population of Native American students from which the sample was drawn consisted of approximately 79 students at the University of South Dakota and 49 students at Black Hills State College, comprising a total of 128 Native American students. A random sample of 38 students (27 from USD and 11 from BHSC) was selected from the population comprising 30 percent of the total population.

The white population consisted of an estimated 3,000 students at the University of South Dakota and 1,500 students at Black Hills State College. A random sample of 48 students (32 from USD and 16 from BHSC) was drawn from the population.

Because of the operational definition of college achievement (college GPA), freshmen and graduate students were not included in the study. Also, as a result of the small sample size, the groups were match-paired to control for differences in such variables as college GPA, age, sex, marital status, and year in college. A combination of t-test and chi-square yielded no significant differences in these variables between the two groups. Hence it may be assumed that differences in these variables were not great enough to influence the relationship between the independent and dependent variables.

The Research Instrument

Two different questionnaires were developed for this study. A pretest was conducted in September 1982 using Native American and white students at Northern State College, Aberdeen, South Dakota. Analysis of the pretest yielded a few minor modifications in the instruments. The two questionnaires are the same except the Native American questionnaire included a three item index designed to measure as objectively as possible Native American traditionalism. This index consisted of: 1) self-reported knowledge of a Native American language, 2) participation in Native American ceremonies while in college, and 3) identification of a reservation as the place of permanent home residence. Positive responses to 2 to 3 of these items formed the criterion used for the determination of traditional Native American students. Whereas, positive responses to only one or none of the items was regarded as indicative of non-traditional Native American students.

Procedures

In October and November of 1982, each subject included in the sample was personally contacted and administered questionnaires. Completed questionnaires were collected and analyzed.

To test the hypotheses, a parametric test, the Pearson r , was used where the data were interval level. A nonparametric test, the Spearman rho, was used where the data were ordinal level. The independent variable Native American traditionalism was treated as a dummy variable so as to convert the data to interval level and allow the use of the more powerful Pearson r test of relationship. The .05 level of significance was used for acceptance or rejection of the hypotheses.

Results

As stated above, the dependent variable, college achievement, was operationally defined in terms of college GPA. Independent variables were divided into three sets of factors:

- 1 — Social Factors
 - a) family income
 - b) parent's educational level
 - c) high school GPA
- 2 — Cultural Factors
 - a) college integration
 - b) participation in college environment
 - c) Native American Traditionalism (Native American sample only)
- 3 — Aspirational Factors
 - a) parent's educational aspirations
 - b) student's educational aspirations

A total of eight hypotheses were developed and tested. The hypotheses and findings were as follows:

Social Factors

H₁: Family income will be significantly related to college achievement among the white sample but not among the Sioux sample.

TABLE 1
Pearson r: Predictors of College GPA for Sioux and White Students

	SIOUX			WHITE		
	r	df	z	r	df	z
(1) Family Income	.22	34	1.3	.7	37	.43
(2) Father's Education	-.14	31	.79	.07	46	.47
(3) Mother's Education	.02	35	.12	.03	46	.21
(4) High School GPA	.06	24	.3	.27*	44	1.8
(5) College Integration	.03	31	.17	.04	45	.27
(6) Participation in College Environment	-.17	22	.78	.21	39	1.32
(7) Native American Traditionalism	.33*	33	1.92	—	—	—

* Significant at .05 level, one-tail test

F₁: Family income was not significantly related to college achievement for the white sample or the Sioux sample.

H₂: Parent's educational level will be significantly related to college achievement among the white sample but not among the Sioux sample.

F₂: Parent's educational level was not significantly related to college achievement for the white sample or the Sioux sample.

H₃: High school GPA will be significantly related to college achievement among the white sample but not among the Sioux sample.

F₃: High School GPA was significantly related to college achievement for the white sample but not for the Sioux sample.

The Pearson r showed that, as hypothesized, none of the social factors were related to college achievement among the Sioux sample. Family income, parent's educational level, and high school GPA all were not significantly related to college GPA. Family income, however, did show a weak relationship to college achievement ($r = .22$) but was not significant at the .05 level. (See Table 1)

Surprisingly among this set of factors only high school GPA was found to be related to college achievement for the white sample ($r = .27$). The other social factors were not significantly related to college GPA and, thus, failed to confirm the original hypotheses. In fact, these variables were shown to have virtually no relationship to college achievement (family income $r = .07$, father's education $r = .07$, and mother's education $r = .03$). (see Table 1)

Cultural Factors

H₄: College integration will be significantly related to college achievement among the Sioux sample but not among the white sample.

F₄: College integration was not significantly related to college achievement for the Sioux sample or the white sample.

H₅: Participation in college environment will be significantly related to college achievement among the Sioux sample but not among the white sample.

F₅: Participation in college environment was not significantly related to college achievement for the Sioux sample or the white sample.

TABLE 2
Spearman rho: Predictors of College GPA for Sioux and White Students

	SIOUX			WHITE		
	rho	df	z	rho	df	z
(1) Father's Encouragement	-.01	29	.05	.35*	46	2.4
(2) Mother's Encouragement	.22	33	1.3	.34*	46	2.3
(3) Student's Aspirations	.25	36	1.5	.07	46	.42

* Significant at .05 level, one-tail test.

H₆: Native American traditionalism will be significantly related to college achievement for the Sioux sample.

F₆: Native American traditionalism was significantly related to college achievement for the Sioux sample.

Analysis of the data yielded several interesting findings. The hypotheses that college integration and participation in college environment would not be related to college achievement among the white sample was confirmed. Neither of these variables were related to college GPA, although the participation in college environment did show a weak relationship ($r = .21$). (see Table 1)

As well, no relationship was shown between these variables and college GPA for the Sioux sample. (see Table 1) The dummy variable Native American traditionalism, however, was significantly related to college achievement as hypothesized ($r = .33$). (see Table 1)

Aspirational Factors

H₇: Parent's educational aspirations will be significantly related to college achievement among both the Sioux sample and the white sample.

F₇: Parent's educational aspirations was significantly related to college achievement for the white sample but not for the Sioux sample.

H₈: Student's educational aspirations will be significantly related to college achievement among both the Sioux sample and the white sample.

F₈: Student's educational aspirations was not significantly related to college achievement for either sample.

As hypothesized parent's educational aspirations was related to college GPA for the white sample. Both measures of parental aspirations were significantly related to college achievement (father's encouragement $\rho = .35$ and mother's encouragement $\rho = .35$). (see Table 2)

However, neither of these same measures were found to be related to college achievement for the Sioux sample. Thus, the hypothesis that parent's educational aspirations would be related to college achievement for this group was not confirmed. (see Table 2)

Student's educational aspirations was not related significantly to achievement for either group. However, while the white sample showed only a slight relationship ($\rho = .07$), the Sioux sample showed a much stronger relationship ($\rho = .25$) which, although not significant at the .05 level, was in the hypothesized direction. (see Table 2)

Discussion

Implications of the Study

The findings indicate that there are fundamental differences in the factors that impinge upon college achievement for Sioux and white students. For whites high school GPA and parental encouragement to attend college were found to be related to higher educational achievement. Findings which may indicate that the factors leading to academic success resides in their preparation for college.

Success in college for Sioux students, on the other hand, seems to be related more to their cultural identity. The crucial contributing factor for the likelihood of college achievement for the Sioux students in this study is the retention of their traditional cultural identity and heritage. Indeed, it is likely that this factor is instrumental in facilitating a strong sense of personal self-identity and confidence in these students. Thus, traditional Sioux students seem to have a better chance for achievement in college than their non-traditional counterparts.

Suggestions for Future Research

Research in the area of higher education among Native Americans is greatly needed. Past studies have largely ignored the perceptions of Native American students regarding their college experience. Like this research, most studies have tended to focus upon empirical measures of higher educational success and failure and the factors related to those outcomes. It appears that investigation into the subjective perceptions of Native American students themselves may shed much necessary light on this subject.

Future research could follow two directions. One could elaborate the basic design used in this study. That is, an investigation of the factors related to college achievement could utilize a larger sample size and use different and expanded versions of the dependent and independent variables.

However, this type of research renders only a static or "snapshot" picture of the phenomenon of Native American higher educational experience. Therefore, a longitudinal study involving a small selective sample of Native Americans would be most useful. In this type of investigation the researcher could study these students throughout their college careers (successes and failures) analyzing the subjective perceptions of the individuals and the course and stages of the educational experience.

References

- Carroll, Richard E., "A Study of Haskell Students: Academic Performance and Cultural Marginality." *Journal of American Indian Education*, 1978, Vol. 18, No. 1, 11-16.
- Chadwick, Bruce A., "The Inedible Feast." In Howard M. Bahr, Bruce A. Chadwick, and Robert C. Day (Eds.), *Native Americans Today: Sociological Perspectives*. New York: Harper & Row, 1972.
- Edgewater, I. Linda, "Stress and the Navajo University Student." *Journal of American Indian Education*, 1981, Vol. 20, No. 3, 25-31.
- Hallowell, Irving A., "American Indians, White and Black: The Phenomenon of Transculturation." *Current Anthropology*, 1963, Vol. 4, 519-531.

- Havighurst, Robert J., "Education Among American Indians: Individual and Cultural Aspects." *Annals of the American Academy of Political and Social Science*, 1957, Vol. 311, 105-115.
- Havighurst, Robert J., "Indian Education Since 1960." *Annals of the American Academy of Political and Social Science*, 1978, Vol. 436, 13-26.
- Jeanotte, Leigh D., *A Study of the Contributing Factors Related to Why American Indian Students Drop Out of or Graduate From Educational Programs at the University of North Dakota*. Unpublished master's thesis, University of North Dakota, 1981.
- Kerbo, Harold R., "College Achievement Among Native Americans: A Research Note." *Social Forces*, 1981, Vol. 59, No. 4, 1275-1280.
- Levitan, Sar A. and Barbara Hetrick. *Big Brother's Indian Programs—With Reservations*. New York: McGraw-Hill, 1971.
- Reboussin, Roland and Joel Goldstein, "Achievement Motivation in Navaho and White Students." *American Anthropologist*, 1966, Vol. 68, No. 3, 740-745.
- Sewell, William H. and Vimal P. Shah, "Socioeconomic Status, Intelligence, and the Attainment of Higher Education." *Sociology of Education*, 1967, Vol. 40, No. 1, 1-23.
- Sill, Maurice L., "Transculturation in Four Not-So-Easy Stages." In Roy Hoopes (Ed.), *The Peace Corps Experience*. New York: Clarkson N. Potter, 1968.
- Steiner, Stan. *The New Indians*. New York: Delta, 1968.
- Witt, Shirley, "Pressure Points In Growing Up Indian." *Perspectives: The Civil Rights Quarterly*, 1980, Vol. 12, No. 1, 24-31.

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