The procedures used in a study to determine how well a group of American Indian college students understood their traditional and modern cultures and a college Caucasian culture were explained in this paper. The sample consisted of 111 Indian students enrolled in the University of New Mexico. The students were tested in the areas of knowledge of the decision-making process in a traditional Indian culture, knowledge of a modern college culture, and knowledge of the decision-making processes for a Native American college student as they might differ from those of the older, more traditional Indian culture. The results were then compared with the answers of experts in the cultures. In analyzing the test results, it was found that no appreciable difference occurred because of sex, amount of Indian blood, tribal affiliation, or class in school. The students comprised a homogeneous group for the representation of the values of the present generation culture. When the students were asked to respond as they themselves felt, they indicated a high degree of reliance on their own opinions; but when they were asked to respond as though they were members of a particular culture, they tended to rely more on other people to help them make decisions. (PS)
ASSESSING KNOWLEDGE OF CULTURES

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Procedures for measuring how well a person understands his or a foreign culture are difficult to devise and this problem is complicated by the fact that the concept of "culture" itself is variously defined by various people. It may be used in a narrow sense to indicate only certain aspects of a particular community or it may be used more broadly to indicate the total life-style of a people. This paper is an explanation of the procedures used in a study to determine how well a group of Native American (Indian) college students understand their traditional and modern cultures and a college Caucasian culture. For the purpose of this study, "culture" has been defined as the process of decision-making.

In other words, the way in which a person makes decisions (relying on his own feelings or the advise of family, teacher, friend, religious leader, employer or counselor) indicates the value which a culture ascribes to these various people. The decision-making processes of the Indian students were assessed in eight areas which were arbitrarily chosen for this study: marriage, family, religion, occupation, education, living arrangements, money and politics. One of the virtues of this procedure is that cultural variables other than the eight chosen for this study can also be tested under the broad topic of "decision-making."

The first problem in conducting a study of this sort is in finding suitable subjects. The over-all purpose of determining how well Native American students understand past, present and college culture was to correlate these findings to the degree of achievement which these students
experienced in college. Therefore, the subjects were chosen from the student body of the University of New Mexico since the results could then be compared to their achievements at the school. In the fall of 1970, 355 Native Americans enrolled at the college. The Native American Bicultural Project set up booths on campus to contact these students. The Native American Studies Center and the Kiva Club also helped to contact Indian students. Ideally, all of the Indian students at the school should have participated in this study, but only 187 Indian students could be contacted and only 111 participated in the studying to varying degrees. The variations in participation were due to several causes: in some cases needed data on the students were unavailable, students failed to indicate that they had participated in the program or did not want to be identified as Native Americans.

In order to determine the students' knowledge of traditional Native American, present young Native American and Caucasian college culture it was decided to assess students' knowledge on the decision-making processes of each culture and then compare the results with the answers of experts on the cultures. Three areas were tested: 1) knowledge of the decision-making processes in a traditional Indian culture, 2) the knowledge in modern college culture and 3) the knowledge of the decision-making processes for a Native American college student as they might differ from those of the older, more traditional Indian culture. Each student was tested three times in order to determine his knowledge of these three areas. In each test he had to indicate who would be most influential in helping him to decide how to deal with problems in the eight areas of marriage, family religion, occupation, education, living arrangements, money and politics. He was given a list of people to choose from who could be important in his
decision-making (self, father, mother, husband-wife, brother, sister, grandparent, aunt-uncle, governor, tribal council member, priest-minister, teacher, counselor, employer, close friend) and from this list he was asked to choose, in order of priority, the four people who would influence his decision most.

On the first test the Native American students had to answer the questions as though they were living 30 years ago, that is to say, living in an older, traditional Indian culture. The test measured their knowledge of how members of a traditional Indian culture would make decisions. On the second test they had to answer the questions as they themselves felt, indicating how they would make decisions. This test was designed to determine the students' reactions in comparison with a group of young Native Americans, who might approach decision-making in a manner different than members of a traditional Indian culture. This test showed whether the students identified with contemporary young Native American culture. The third test required them to answer the questions as though they were members of a modern college Caucasian culture. This test measured their ability to respond to and to understand the Caucasian college culture as a member of the culture would.

Three different groups of experts in the various cultures being studied were tested and the results used in criteria for measuring the students' responses. For the first test in which knowledge of particular traditional Native American culture was being measured, the students were asked to identify people in their tribe whom they considered to be authority figures. It was assumed that anyone who held a high position in the tribe would be representative of traditional tribal values. Five males and five females over 30 years of age were chosen from each tribe in this way. The equal
representation of both sexes is part of a consistent effort by this study to allow for possible variations due to sex. When the data were analyzed the male students were compared with the male authority figures and the female students were compared with the female authority figures. The authority figures would naturally tend to be over 30 years of age and thus they knew and represented traditional Native American cultures. These experts in traditional culture were then given the same tests as the students took and their responses were considered the norm for methods of decision-making in a traditional culture thirty years ago. In establishing a consensus of opinion for the authority figures, against which to measure the students' responses, the answers of the authority figures were compared and the most frequently-occurring responses were considered the norm for traditional Indian culture. Although theoretically it is possible that each authority figure could have chosen an answer different than each other authority figure for any particular question and a consensus of opinion could not have been reached, nevertheless this never happened. The fact that the authority figures represented a common culture meant that their opinions were shaped, in large part, by their common culture. Thus, variation in their answers was minimal.

This method of choosing representative experts in culture avoids several pitfalls which may accompany such a study. If the students' responses were measured by outside writers on culture there is the danger that the writer himself might be biased in some way about culture or that his general information might not reflect the beliefs of the individual culture under study. If the people conducting the study chose the authority figures from the culture there is the same danger that they might be biased about the way a culture "should be" and might choose people who seem authority figures
to them but who actually do not yield as much power as other members of the culture. This study tried to make the criteria as objective and valid as possible by allowing members of the culture (the students) to identify authority figures in the culture. The students would certainly be more knowledgeable than any outsider could be.

One problem which the study was careful to recognize was differences among the several Native American tribes represented by the students. The students' responses were only measured against the responses of authority figures from their own tribes since other tribes might reflect different beliefs. There were four tribes represented by the students: Navajo, Hopi, Pueblo and Plains Indian. However, the responses of the Plains Indian and Hopi Indian students for the first test were discarded because the interviewers could not contact enough reliable authority figures from those tribes.

Although the students were allowed to indicate, by priority, four people who would influence their decision-making processes, nevertheless, only the first two responses were considered in this study because the computer analyzing the data could not tabulate more than the first two responses. The students' responses were compared with those of the authority figures taking the same test to determine the degree of agreement between them. If the students agreed with the authority figures it meant that they had a good understanding of traditional Indian culture. If a student's first choice agreed with that of the authority figures he got 1 point. If the student had the same first two responses as the authority figures but in reversed order, he received 1 point. All other answers counted as 0. Thus, the students' degree of agreement with the authority figures could range from complete agreement (3 points) to total disagreement (0 points).
After the results were scored, the data were further analyzed to determine whether sex or amount of Indian blood (either 100% Indian or less than 100%) of the students or their class in college affected their responses. In analyzing the test results it was found that no appreciable difference occurred because of sex, amount of Indian blood or class in school. The data were then analyzed according to the tribe of the students (only Pueblo and Navajo students participating in this test). The Navajo and Pueblo students did not differ in their knowledge of traditional Indian culture. Thus, after analyzing the test results by sex, class, amount of Indian blood and tribal affiliation of the students it was found that although slight variations sometimes occurred, nevertheless, the results were generally the same for each student. For purposes of further testing, the results could be combined and the group of students considered homogeneous.

In the second cultural test in which the students were asked to respond as they themselves felt, the purpose was to determine whether the students' responses were typical of the culture of present generation Native Americans (as distinguished from the knowledge of traditional Native American culture measured in the first test). For this test no outside authorities were used. Instead, the students themselves were used as a norm for present generation Native Americans. Each individual's responses were compared to the total response of the group. The method of obtaining a consensus of opinion for the group was the same as that used to obtain a consensus of opinion for the Native American authority figures. The same method of scoring was used as in the first test to establish the degree of agreement between the individual students and the group as a whole.
The results were sub-divided and analyzed by sex, class and amount of "Indian" blood (25% or less, 25-50%, 50-75%, 75-100%) of the students. It was found that although slight variations occurred, they were either too slight to be significant or did not vary in any meaningful pattern. For example, there was variation on two items when the results were analyzed by the amount of Indian blood of the students but the variations did not seem to correspond with the variation of Indian blood. Also, when the total scores were taken for the second test, there was no appreciable difference in scores due to the amount of Native American blood of the subjects though the two items within the test showed variation.

Just as the results of the first test were analyzed by the tribe of the students so, too, the data for the second test were broken down according to the tribe of the students. Four tribes were represented (Hopi, Navajo, Pueblo, "Plains") although there was only one Hopi subject which means that an interpretation of the data based on the tribal affiliations of the students was limited. However, in analyzing the total scores no appreciable difference was found due to the tribal affiliations of the subjects just as no appreciable difference was discerned due to the sex, class, or amount of Native American blood of the subjects. When the second test was compared with the first test it was found that there was less difference in the second test between the students' responses and the responses of the experts in contemporary Native American culture (in this case, the students themselves). This implies that the students comprised a homogeneous group for the representation of the values of the present generation culture.

The third test was designed to determine how well the Native American students understood a modern college culture. As in the first test, a group
of experts in the culture being tested was needed as a criterion against which to measure the responses of the Indian students. In this case a group of experts in college culture was needed. The group representing the values found in a college culture was chosen randomly from the Caucasian student body of the University of New Mexico. It was assumed that this random sampling of students would comprise a group fairly representative of values dominant in a college culture. In addition, the members of this expert group had various majors or were in various classes at the school ranging from freshman to senior level. Thus, the study tried to eliminate bias due to the students' majors or class at school by introducing a broad sampling of majors and classes.

This group of Caucasian college students became the standard of college culture used to measure the students' responses. The Caucasian college students took the same test in methods of decision-making as the Native American students did. In this test the Native American students tried to answer as though they were members of a Caucasian college culture. Their responses were then compared with those of the Caucasian students to determine the degree of agreement. A high degree of agreement would mean that the Indian students had a good understanding of college culture.

The same method of scoring was used as was used in the other two tests. Again, the results were analyzed by sex, class, tribe and amount of "Indian" blood (25% or less, 25-50%, 50-75%, 75-100%) of the students. It was found that very little variation occurred which could be correlated with these four factors. Thus, for purposes of further testing the data could be grouped together since the data seemed to show that the group of students was fairly homogeneous.
These three tests showed one particular variation in the students' responses which is very interesting. On the second test in which the students were asked to respond as they themselves felt, they indicated a high degree of reliance on their own opinions in making decisions. But on the first and third tests in which they were asked to respond as though they were members of a particular culture (the traditional Native American culture and the Caucasian college culture, respectively) they tended to rely more on other people to help them make decisions.

The validity of this testing procedure, as all testing procedures, depends on the objectivity and lack of bias in the tests. The answers for these tests were fairly objective since they consisted of a listing, by priority, of people influential in determining the students' decision-making processes. The answers required no interpretation of the part of the interviewers which could introduce any personal bias. Also, the random sampling of the Caucasian students for the third test and the exclusion the authority figures for the first test indicates that the criteria for measuring student responses of these two tests were fairly impartial and accurate. It seems that this test can be used to measure knowledge of cultural variables other than the eight chosen specifically for this study since the measurement of decision-making processes can be applied to almost any cultural variable.