AN ASSESSMENT AND COMPARISON OF NATIVE AMERICAN STUDENTS WITH NON-INDIAN STUDENTS RELATIVE TO VOCATIONAL ASPIRATIONS

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CHAPTER I

INTRODUCTION

The educational and counseling services in public schools where American Indian students are in attendance incur the responsibilities of providing information to them. This information should be relevant to their making choices toward a form of career development and bearing in mind that there could be cultural difference involved.

The American Indian students come from a unique culture that may require the counselor to utilize a technique or a combination of techniques that will facilitate effective counseling. For example, the counselor could be confronted by passively nonverbal clients whose cultural teachings insist that she or he should listen and absorb knowledge selectively rather than being verbose. A counselor who expects clients to verbalize freely their feelings may not have much success with the American Indian students.

The ramifications of this kind of situation could create a sense of ambiguity in terms of interpreting test scores and profiles for Indian students, especially for the counselor who is acquainted with studies involving test bias (Hunter, Schmidt, and Rauschenberger, 1977). This is compounded by the fact that the counselor's doubt is supported by opinions that minority groups have different aspirations and interests from dominant populations (Clements, Duncan, and Taylor, 1969).

Background Information

Interest inventories are a case in point. The identification of an individual's interest, as one of the many forces that motivate activity, has received much attention in the past several decades. An individual's interest represents a tendency to select one activity or thing in preference to something else, to choose one instead of another. Said even more simply, interests are "likes."

In a discussion of interests and personality, Darley and Hagenah (1955, p. 133) define interests thus, "measured interests and actual occupational involvement reflect personality and provide opportunities for the fulfillment of personal needs and drives."

Super and his associates (1963) have sought to develop and test a theory of vocational development. The key to understanding their formulations lies in the following statement:

> In expressing a vocational preference, a person puts into occupational terminology his idea of the kind of person he is; that in entering an occupation, he seeks to implement a concept of himself; that in getting established in an occupation, he achieves self-actualization. The occupation, thus, makes possible the playing of a role appropriate to the self concept (p. 22).

According to Holland (1966) and Crites (1969), a person's interests, wishes, and happiness determines what that person actually does well, more than his or her intelligence, aptitudes, or skills do. They further conclude that strength of desire outweighs everything else.

Traditionally, most adolescents have selected an occupation by either following the profession of their fathers or by pursuing personal interests. Research indicates that family patterns strongly influence occupational choice and that a substantial number of adolescents do tend to enter fields either identical with or closely related to the

occupation of the father (Smelzer, 1963; Cosby and Picou, 1973). Personal interests generally develop in late childhood but seem to change throughout early and middle adolescents. Interests can help a person acquire the basic habits of industry, which Havighurst (1964) categorizes as learning to organize one's time and energy to get work done and learning to put work ahead of play in appropriate situations.

There has been a considerable amount of research concerning the problems of disadvantaged youth in the United States and the apparent difficulties encountered by members of the various cultures. For reasons unknown, there seems to be a void relative to the vocational aspirations of American Indian youth. The paucity of research into this area of the American culture creates a disadvantage for the counselors and certainly is not a benefit to the American Indian students.

Statement of the Problem

The lack of knowledge pertaining to American Indian students' vocational development has fundamental implications relative to the counseling profession. Counselors working with American Indian students inevitably have questions concerning standard test interpretation and the validity of test measurement across cultures. Among them are the use of interest inventories in terms of scoring patterns and the differentiation of response in respect to the non-Indian students.

This void in research which is specific to this ethnic group deters functional theory of vocational development. To be more specific, criteria of vocational development, such as occupational preferences, success, satisfaction, level of occupational attainment, and stages of

personality development are at a minimum in respect to American Indian students.

Need for the Study

A great deal of research effort has been expended on the study of the occupational aspirations of students, and the volume of material continues to increase. Although diverse, the investigations have obviously neglected the American Indian students. It is this lack of research that lends legitimate concern for attempting to help fill this void. Little is known relative to vocational aspirations of American Indian students.

The essence and significance of this study will be useful to educational/vocational counselors and to those who theorize about vocational development. Consequently, the interests or aspirations of students are assumed to be crucial, or at least, highly important determinants of subsequent adult status attainments (Burchinal, Haller, and Taves, 1962).

Purpose of the Study

The purpose of this study was to assess the vocational aspirations of American Indian students---male and female, who are residents of Oklahoma, enrolled in public schools and in grades 11 and 12. Also, this study was to assess the vocational aspirations of non-Indian students---male and female, who are residents of Oklahoma, enrolled in the same public schools and in grades 11 and 12.

Further, this study was to make comparisons of the data collected from both the American Indian and non-Indian students' inventoried interests as related to vocational aspirations. Also, this study was

to hopefully help increase our general knowledge about the vocational aspirations of American Indian students.

Research Questions

Specifically, this study will attempt to answer the following questions:

1. What are the vocational aspirations of American Indian male students as compared with the non-Indian male students?
2. What are the vocational aspirations of American Indian female students as compared with the non-Indian female students?
3. What are the vocational aspirations of American Indian female students at each school as compared with the non-Indian female students at each school?
4. What are the vocational aspirations of American Indian male students at each school as compared with the non-Indian male students at each school?

Hypotheses

The hypotheses tested in this study are the following:

1. There is no statistically significant difference between the mean scores of American Indian male students and the mean scores of non-Indian male students.
2. There is no statistically significant difference between the mean scores of American Indian female students and the mean scores of non-Indian female students.

3. There is no statistically significant difference between the mean scores of American Indian female students and the mean scores of non-Indian female students at each school.
4. There is no statistically significant difference between the mean scores of American Indian male students and the mean scores of non-Indian male students at each school.

Definition of Terms

American Indian Student(s): In general terms, a person or persons whose blood quantum is one-fourth or more American Indian as defined by the Bureau of Indian Affairs.

Non-Indian student(s): A student or students belonging to other ethnic groups as well as Anglos and Blacks.

Suburban school: A school located in a small city where the population would be estimated to be less than 30,000.

Rural school: A school located in a small town where the population would be estimated to be less than 2,000.

Inventoried interest(s): Refers to the assessment of one's preference for a large number of activities and occupations.

Non-Indian counselor(s): A person or persons belonging to other ethnic groups as well as Anglos and Blacks.

CHAPTER II

REVIEW OF RELATED LITERATURE

Identification of the Need

Although it is common that students often informally seek assistance from friends and other significant persons, the professional delegated to provide this kind of expertise and support is the school counselor. Other things being equal, a helper of similar race and social background is likely to be more effective (Gordon and Grantham, 1979); but in the case of American Indian students, this match may be unrealistic. This being the case, many Indian students must rely upon non-Indian counselors for help and support. Unfortunately, not only is there a lack of trained Indian counselors in terms of total need, but there is little reason to believe that information and skills imparted by counselor training programs to non-Indian counselors are relevant to working effectively with Indian students.

The Indian youths of today are faced with multitudes of problems. They come from a segment of our society that is not totally attuned to the schools and their values. In the public schools as societal institutions, the Indian students have been undergoing a process of assimilation, but the process could well be regarded in terms of a disguise under the policy of integration. This process of assimilation, to the Indian students, is a process of alienation concerning the way he or she feels in regard to their own culture and his or her feelings

toward the non-Indian culture. The Indian youths have expressed an awareness of powerlessness or even a low self-concept in the direction of their lives (Hathhorn, 1971; Allen, 1973).

This "melting pot" principle was allegedly the system through which individuals were supposedly absorbed into a cohesive national unity. Perhaps the most basic element of this system was the promise of economic freedom and opportunity. This promise remained empty for many ethnic and cultural groups because of economic discrimination in terms of employment, earnings, and occupational achievement (Wilber, 1975).

According to Johnson (1975), the most economically disadvantaged minority group in the United States could be the American Indians. In illustration of this, a United States Department of Labor Report (1976) indicated that 48 percent of American Indians on reservations were living below the poverty level and approximately 55 percent of all Indian housing on reservations were recognized as inadequate. Also, the report noted that 58 percent of Indian children on reservations drop out of school before they complete the sixth grade level of education. Further, the report noted that the situation of the former reservation American Indians was roughly comparable to their reservation counterparts. Concerning the average unemployment on reservations, the report indicated over 40 percent and the former reservation areas at 20 percent unemployment.

Consequently, the three levels of government (federal, state, and local) responded through legislative enactments relative to equal opportunity and affirmative action as well as limited vocational training programs. However, there was a vital oversight concerning the development of these programs. These programs did not seem to

consider the unique interest and aspirations of the American Indians. Several writers had noted the need for, but lack of, vocational education, guidance, and counseling for American Indian students (Spang, 1970; Havighurst, 1971). Vocational development studies appear to be slow in responding to this need concerning American Indian students. This is not difficult to understand, in reality, the existent theories on vocational development mostly evolved from observations and investigations of male, Anglo, middle-class students and adults (Cole and Hanson, 1975; Fitzgerald and Crites, 1980).

Fenske (1970) pointed out that collected data concerning information upon which to gauge success or potential to assist individuals in choosing vocational or technical education as a background for a career was not available. Also, no published study identifies the common predictive variables for vocational or technical plans or success. Cross (1979) attempted to point to this lack of information about the student

> . . . what we know boils down to what we have known for ages . . . that motivation is the key to learning and that this varies greatly from culture to culture, decade to decade. It is for this reason that a thorough understanding of the attitudes, backgrounds, and interests of a student is so important (n.p.).

A study conducted by Spang (1971) more than a decade ago indicated that there has been a serious lack of counseling research specifically directed towards the American Indian student. Few empirical studies have appeared that relate counseling to the needs or concerns of the American Indian. At the risk of sounding rather pessimistic, this assessment of the American Indian's situation does reveal that a problem does in fact exist. Thus, many more concrete and detailed answers to a host of questions need to be forthcoming in order to improve the service provided by counselors who serve American Indian students.

Results, Methodology, and Research Instruments

Schmieding and Jensen (1968) conducted a study to assess the impact of an occupations class on the vocational development and vocational tenacity of a group of American Indian students in a residential setting. Also, as a secondary objective, they compared vocational development and vocational tenacity of the Indian students with a comparison group of Caucasian students. They used a sample of 78 eleventh and twelfth grade residential Indian high school students divided equally on a random basis into an experimental and control group. The comparison group consisted of 39 Caucasian students from a nearby midwestern high school. The experimental group had the advantage of an organized occupations class and was taught by a state certified school counselor, whereas, the control and comparison groups did not have this advantage.

Following the termination of the experimental group's occupational unit which consisted of 22 sessions of 50 minutes each over an eight-week period, the groups were administered the Vocational Development Inventory (VDI) and a modified form of the Vocational Tenacity Test (VTT). The VDI consists of 50 attitudinal and behavioral statements while on the modified version of the VTT the subject reacts successively to three hypothetical situations. The t-test was used to analyze the data.

No statistically significant difference was found between the mean development scores of the experimental and control groups. However, the comparison group did have a significantly higher mean vocational development score than did either of the Indian groups. Upon comparing the results of the experimental and control groups, it was evident that the experimental group had no significant effect on the students' measured

vocational development, yet the observed trend was in a positive direction. Less variability was also observed in the experimental group which might suggest that this group became more homogeneous during the period of the occupational unit. The findings that both Indian groups had significantly lower scores than the comparison group substantiates, in an objective manner, that Indian students do have low vocational development as measured by the VDI.

The results of the VTT revealed no statistically significant mean difference between the three groups. However, the mean score difference between the Indian experimental and Indian control group was in the direction of significance. The control group had a larger mean score. Since the Indian experimental group had a lower measured tenacity score than the control group and no significant difference was noted, the results may be simply due to chance.

Spencer (1973) investigated the occupational orientations of Choctaw high school students in Mississippi. All sophomores, juniors, and seniors in the Bureau of Indian Affairs high school on the Choctaw reservation in east central Mississippi were interviewed by questionnaire. Two major occupational questions were asked in the study: (1) "What job would you most like as a lifetime job?" This was termed "occupational aspiration." (2) "What job do you really expect to have most of your life?" This was defined as "occupational expectation."

The results indicated that the student's answers to the questions demonstrated a great deal of ambivalence and uncertainty toward, and lack of knowledge of, occupations. Of the 133 sophomores, juniors, and seniors who participated in the study, 31 failed to answer one or both of the above questions. Of those who answered both questions, 50 percent

expected to have a job which was different from the job they would most like to have. Thus, the findings illustrated that less than 40 percent of the students had occupational goals which they expected to achieve.

The students were also asked how much thought they had given to the question of what job they would like to have, how much knowledge they had of the job, and their certainty that this was the job they wanted. Only 19 percent said they had given it "much thought;" 81 percent said they had given "some," "little," or "almost no" thought to the question. When asked how much they knew about the job they wanted, less than one percent said they knew "much" about it. When asked whether they were certain this was the job they wanted, less than one percent said they were certain, with the remainder saying either that they would "probably" change or "might" change their minds.

Spencer found no significant difference between the males and females in the status level of their occupational aspirations, but noted that the female Choctaws had higher occupational expectations than males. While 90 percent of the females expected to have high or moderate status occupations, only 56 percent of the males expected to have occupations at these levels. Accordingly, 44 percent of the males expected to have low-level occupations.

Williams and Whitney (1978) used Holland's Vocational Preference Inventory (VPI) to investigate the interest patterns of a sample which consisted of 60 male and 50 female university freshman students who were predominantly Black, came from urban areas, and had severely limited financial resources. The comparison group were those reported by Holland for college freshman in 31 diverse institutions. They found that minority college students generally achieved lower means on all six VPI

scales (Realistic, Intellectual, Artistic, Social, Enterprising, and Conventional---each composed of 14 occupational titles) than did the college freshman population. Since VPI scores are simply the number of occupations checked for each scale, this means that students check fewer occupational titles than did the general college freshman group.

One possible explanation for these results would be that the disadvantaged students are, in fact, less familiar with the job titles making up the VPI. Other plausible explanations might include a lower degree of "exploratory" inclination or a more restricted view of possible jobs (making students less apt to check a large number of occupations).

Since the suggested uses for VPI results center on the student's highest three or four scales, a difference in means between disadvantaged students and the population of college freshman would not necessarily impair the VPI's usefulness as a counseling tool. If the structure of the VPI scales was the same for disadvantaged students as for the college freshman population, the vast accumulation of research data might still be applicable. All of the above analyses were performed separately for men and women students since most of the normative data and research has been conducted in this manner.

Scott and Anadon (1980) completed a study in which they compared the standard scores from the American College Testing Program Interest Inventory (ACTII) scales of college-bound Native American and Caucasian students separately by sex to determine whether or not the scores across interest scales were similar. Also, they wanted to find out if the scale scores result in similar patterns of congruence between those measured interests and the students' educational plans; and to observe whether or not the responses from the interest inventory of both groups

yielded similar results relative to the students' vocational choices and the ACT World-of-Work Map. The sample consisted of 391 females and 208 males who had checked the Native American category in the Act Student Profile Section; the Caucasian sample included 186 females and 208 males.

They found that Caucasian females scored higher than the Native American females on the Science and Creative Arts scales. Caucasian males scored higher than Native American males on the Science and Business Detail scales. Although both females and males were different ($P < .05$) on two of the six interest scales, none of the differences was more than 2.5 standard score points on scales having a practical range of about 50 points (25 to 75). Data based on the ACT World-of-Work map region indicated on each Student Profile Report for each of the four samples was used, by sex, and a high degree of similarity was noted. The frequency distributions yielded no significant differences, by sex, at the .05 level, using X^2. Overall, the data illustrated the similarity between the Native American and Caucasian samples, grouped by sex, in their responding to the inventory items.

In comparing the Native American and Caucasian patterns of congruence, by sex, between the students' stated choice of college major and scores on the related interest inventory scale, both females and males showed similar patterns of congruence resulting in low X^2 values (X^2 .05 $\underline{/}5\underline{/}$) = 11.1. Thus, the vocational choices of the Caucasian males were more closely related to the World-of-Work Map region indicated for them than was the case for the Native American males. The female samples were not different.

Scott and Anadon concluded that in answering the primary question underlying their study, Native American college-bound students produced

ACT Interest Inventory results very similar to those produced by their Caucasian counterparts even though there were some differences between these two groups. They noted that finding cross-cultural commonality results for one interest inventory does not generalize to other inventories.

Epperson and Hammond (1981) investigated the appropriateness and usefulness of the Kuder General Interest Survey, Form E, (Kuder-E) with a homogeneous Native American population in terms of comparing the distribution of scores obtained on the Kuder-E by 134 ninth grade Native Americans with the corresponding norms, by sex and grade in school, provided in the manual for the Kuder-E. The sample was drawn from two successive ninth grade classes which consisted of 66 males and 68 females of the Zuni Indian Tribe in New Mexico. The Kuder-E was frequently used in many secondary schools, including those whose students were predominantly Native American. The instrument inventories the preferences of students in 10 broad areas: outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical activities. In addition, the Kuder-E contains a verification scale (V scale). This scale consists of responses seldom made by individuals who have completed the survey carefully and sincerely. Although the V scale is not normed, Kuder recommended a "cutoff" score of 14. The profiles of the Zuni sample which contained a V score of 14 or less were not included in further analyses of their study.

Their study indicated that a comparatively large proportion of the Native American sample produced unacceptable scores on the verification scale. The comparisons on the ten interest scales of the Kuder-E revealed statistically significant and substantial differences on six

scales for males and seven scales for females. In the Native American sample, males and females differed on six of the interest scales. Overall, the results are interpreted as raising some questions about the appropriateness of the items on the Kuder-E for the population investigated and suggested the advantage of using local norms for interpretations with such homogeneous and divergent cultural groups. Their conclusions were discussed in terms of the construction of the Kuder-E and within the context of nondiscrimination in interest measurement.

Summary

In summarizing the review of literature, one can only conclude that the vocational interests of Native American students as previously documented illustrates commonalities as well as differences relative to their non-Indian counterparts. The literature revealed that Indian students tend to have low or delayed vocational development as well as a weaker vocational tenacity. This may be explained in terms of improved vocational perception especially when disadvantaged groups are involved who may have limited experiences on which to base their judgments.

Relevant research found no significant difference between the Native American males and females as to status level of their occupational aspirations. However, the indication was that female Native American students had higher occupational aspirations than males. Accordingly, Indian male students expected to have lower-level occupational aspirations. The Indian students seemed to have demonstrated a great deal of ambivalence and uncertainty toward, and lack of knowledge, concerning occupations. This coincides considerable with the disadvantaged students. That is, when their sample means were compared to the population means,

it seemed to suggest that minority disadvantaged students earned lower mean scores on interest scales than did the corresponding population.

Recent research has found that Native American students' scores on interest inventories revealed similar student profiles with non-Indian students, grouped by sex. The differences between females and males were not so great as to hinder the use of the instrument in terms of measuring occupational aspirations and usefulness as a counseling tool. In essence, these reported results suggest that the interest profiles should be accepted and handled in the same manner by counselors, whether their clients are Native American or non-Indian students. It is understandable that some disparity is to be expected and is usually a part of the counseling discussions of test results.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to assess the vocational aspirations of American Indian students---male and female, who are residents of Oklahoma, enrolled in public schools and in grades 11 and 12. Also, this study was to assess the vocational aspirations of non-Indian students---male and female, who are residents of Oklahoma, enrolled in the same public schools and in grades 11 and 12. Further, this study was to make comparisons of the data collected from both the American Indian and non-Indian students' inventoried interests as related to vocational aspirations.

Assumptions

The assumptions underlying in this study consist of the following:

1. The respondents were random samples from their respective corresponding populations.

2. The responses of the students to the Strong-Campbell Interest Inventory (SCII) accurately reflect their interests toward vocational aspirations.

3. That each school, randomly selected, would have students from the Native American and non-Indian ethnic groups.

4. The instrument used in the inventory was an accurate measurement of students' vocational interest.

5. The random samples were homogeneous in relation to their respective ethnic groups.

6. The findings of this study would be applicable to students in other schools in Oklahoma.

Selection of the Subjects

The subjects included in this study were randomly selected and further utilizing the following criteria: (1) The Native American (male and female) subjects and the non-Indian (male and female) subjects must be enrolled in the same public school; (2) they must be in the 11th and 12th grades; (3) the Native American subjects include those who are verified as being one-fourth (1/4) or more degree Indian blood, for instance, Johnson-O'Malley program participant; and (4) the non-Indian subjects include those who make up the remainder of the student population.

Eighteen public schools were randomly selected by assigning numbers to the schools that had Johnson-O'Malley program contracts (information for this was received from the Bureau of Indian Affairs, Anadarko Area Office, JOM Annual Report, 1978-79), then the numbers were put on paper discs and placed in a container, to be drawn out one at a time. Each public school selected by this process must have at least five male, five female Native American subjects, and five male, five female non-Indian subjects at the 11th grade level; and at least five male, five female Native American subjects, and five male, five female non-Indian subjects at the 12th grade level. Five discs were drawn from the

container which would have totaled 200 subjects, but three of the public schools did not fit the above criteria, leaving two public schools that could be included in the study. These two schools numbered 80 total subjects.

Instrument Selection

The Strong-Campbell Interest Inventory (SCII) is the present edition of the Strong Vocational Interest Blank (SVIB). It has, perhaps, the longest track record in terms of usage than any other psychological measurement test instrument. The SCII, as utilized for the purpose of this study, was an appropriate instrument to examine the differences in interest profile patterns of Native American (male, female) and non-Indian (male, female) students. Its measurement of interests and not of aptitude or intelligence can be used in aiding students in making long-range occupational or curricular choices. Also, since its major use has been with 17 and 18 year olds, and with older students, the "appropriate" aspect fits again. Finally, its reading level is comfortable for the students which is reported to be at the sixth grade level.

Collection of Data

Two public schools included in the study were in their spring semester when contact was made by a letter being sent to the school superintendent from the investigator's advisory committee chairman. The letter included an introduction of the investigator along with the purpose of an upcoming visit to the school. The superintendent at each school was perceptive to this method as was experienced by the atmosphere during the visit which turned out to be very positive (this method was basic for the five visits).

Arrangements (as a result of the personal visits) were made for the investigator to schedule another visit for the purpose of administering the Strong-Campbell Interest Inventory to the students randomly selected to compose the sample. It was determined during these visits to each school that the most appropriate time to administer the interest inventory was during the students' free period at the school. A classroom was assigned to the investigator and with the school counselor's assistance, the Native American and non-Indian students in attendance on that day were assembled and given the test---which took about 35 minutes at the longest. Before the SCII was handed out to the students, the investigator pointed out the characteristics of the test, purpose, and intent of using the test results as well as asking if anyone had a change of mind to take the test because it was not mandatory. The students were also told that after using the SCII Student Profile Reports, they would be returned back to their school.

Analysis of the Data

The analysis of variance was used for testing the hypotheses on pages five and six of this study as outlined by Linton and Gallo (1975). With this statistical procedure, it was possible to test differences between groups, among levels, and to determine the nature of the interaction effects.

Limitations

Some limitations are inherent in the study. These include: (1) The findings of this study were limited to the public schools in Oklahoma that had a specified number of Native American students in

attendance; (2) the findings were limited to the 11th and 12th grade levels; (3) the students in the sample were grouped by race; (4) by sex; and (5) by school.

CHAPTER IV

RESULTS

Introduction

The results of this investigation are reported under two major divisions as follows: (1) Data Summary and (2) Results of Analysis. All data included for this investigation were obtained from students' responses to the items on the Strong-Campbell Interest Inventory (Form T-325). The test booklet contains seven sections of which this study is concerned specifically with the occupations section which consists of 131 items. These items are all names of occupations, and this may be the best section in terms of measurement power. The occupational scales are normed with a mean score of 50 and a standard deviation of 10; and the SCII Men-in-General Samples on the 1981 Occupational Scales indicated that the highest mean score of 36.70 for the I.R.S. agent with the lowest mean score of 15.10 for the physicist; and the Occupational Scales for Women-in-General indicated the highest mean score of 43.90 for the navy officer and the lowest mean score of 13.90 for the art teacher.

Data Summary

Research questions were directed to this study and were stated in the following manner:

1. What are the vocational aspirations of American Indian male students as compared with the non-Indian male students?

Table I shows the occupations in rank order in descending mean scores of Indian male students. The computer programmer received the highest total mean score. The sociologist obtained the lowest total mean score.

The highest mean score of the Indian male students 41.25 and their lowest mean score of 8.50 when compared with Men-in-General Occupational Scales of 36.70 for the highest and 15.10 for the lowest mean scores presents a positive picture relative to the highest scores.

The occupational ranking follows quite closely to the distinction between "head" and "hand" work, and between "white collar" and "blue collar." The first nine occupations are all "hand" work and "blue collar" except for the executive housekeeper and I.R.S. agent. From elementary teacher down, the occupations are mostly "head" work, and "white collar" with the exception of forester, recreation leader, and vocational agriculture teacher.

The non-Indian male students rank order of occupational scales, Table II, presents the occupations in rank order in descending mean rating scores. The highest mean score was received by the farmer occupation. The lowest mean score was obtained by the sociologist occupation.

The highest mean score of 40.90 received by the non-Indian male students and the lowest mean score of 7.10 in comparison with the highest mean score of 36.70 and 15.10 for the lowest on the Men-in-General Occupational Scales shows a respectable observational view concerning highest scores.

The seven top listings are all "hand" work. Downward from restaurant manager, the occupations are all "white collar," except for beautician, recreation leader, and vocational agriculture teacher. This ranking of occupations has its own distinctions.

TABLE I

MEANS AND STANDARD DEVIATIONS FOR INDIAN MALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES

Occupation	Means (N-20)	Std. Dev.
Computer Programmer	41.25	7.75
Skilled Crafts	40.50	13.25
Police Officer	40.05	9.19
Farmer	38.30	10.12
Rad. Tech. (X-Ray)	37.00	7.09
Photographer	36.00	9.31
I.R.S. Agent	35.00	8.39
Executive Housekeeper	34.70	7.77
Beautician	34.70	6.71
Elementary Teacher	34.30	10.20
Forester	33.80	9.61
College Professor	32.80	9.82
Licensed Practical Nurse	32.60	6.86
Credit Manager	32.55	10.46
Air Force Officer	32.20	10.07
Musician	31.95	8.41
Flight Attendant	31.95	7.45
Restaurant Manager	31.65	8.99
Physical Therapist	31.05	10.35
Dept. Store Manager	30.80	6.59
Navy Officer	30.80	12.13
Realtor	30.60	7.49
Math-Science Teacher	30.00	12.39
Registered Nurse	30.00	9.97
Dentist	29.65	9.01
Social Science Teacher	29.45	9.24
Geologist	28.25	10.47
Army Officer	28.15	9.90
Special Ed. Teacher	28.10	12.33
Veterinarian	27.75	7.83
Physical Ed. Teacher	27.65	11.98
Recreation Leader	27.50	7.65
Accountant	27.30	6.51
Engineer	26.90	9.39
Agribusiness Manager	26.85	8.94
Nursing Home Administrator	26.85	10.75
Dietitian	26.75	9.96
Occupational Therapist	26.75	5.60
Pharmacist	26.50	10.22
Purchasing Agent	26.25	9.29
Chiropractor	26.00	10.35
Architect	25.40	8.62
School Administrator	25.35	9.97

TABLE I (Continued)

Occupation	Means (N-20)	Std. Dev.
Interior Decorator	25.20	8.89
YWCA/YMCA Director	25.05	10.09
Advertising Executive	24.55	9.30
Personnel Director	24.45	9.17
Artist, Fine	23.85	13.55
Artist, Commercial	23.40	12.41
Marketing Executive	23.35	9.49
English Teacher	22.90	7.17
Foreign Lang. Teacher	22.80	5.42
Optometrist	22.70	12.40
Medical Technologist	22.60	12.94
Librarian	22.55	6.07
Investment Fund Manager	22.50	8.34
Systems Analyst	22.30	10.45
Banker	22.25	6.52
Reporter	22.10	8.85
Guidance Counselor	21.90	11.08
Lawyer	21.80	8.84
Voc. Agric. Teacher	21.75	11.40
Elect. Public Official	21.70	7.85
Speech Pathologist	21.30	10.77
Physician	19.85	9.35
Biologist	19.20	8.29
Business Ed. Teacher	19.10	10.02
Buyer	18.50	10.91
Art Teacher	18.35	11.20
Mathematician	17.25	8.50
Chamber of Comm. Exec.	16.75	8.46
Life Insurance Agent	16.70	10.63
Minister	15.95	11.11
Social Worker	15.75	8.61
Public Relations Director	14.95	8.90
Public Administrator	14.45	10.70
Psychologist	14.40	8.46
Geographer	13.55	8.68
Chemist	12.30	9.49
Physicist	11.00	10.05
Sociologist	8.50	9.34

TABLE II

MEANS AND STANDARD DEVIATIONS FOR NON-INDIAN MALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES

Occupation	Means (N-20)	Std. Dev.
Farmer	40.90	8.78
Computer Programmer	38.65	7.49
Rad. Tech. (X-Ray)	38.55	8.02
Photographer	37.15	9.77
Skilled Crafts	36.45	9.30
Police Officer	36.10	11.44
Forester	33.90	8.30
Restaurant Manager	33.45	8.64
Realtor	33.35	7.37
College Professor	33.20	6.58
Beautician	32.70	5.11
Musician	32.40	8.62
Dentist	32.30	8.54
I.R.S. Agent	31.90	10.29
Dept. Store Manager	31.60	6.95
Credit Manager	31.15	9.89
Licensed Practical Nurse	30.45	4.70
Executive Housekeeper	30.15	7.08
Pharmacist	30.05	9.80
Geologist	30.00	9.60
Flight Attendant	29.90	6.21
Math-Science Teacher	28.30	12.28
Accountant	28.20	6.97
Physical Therapist	28.05	10.60
Air Force Officer	28.05	8.91
Marketing Executive	27.75	9.17
Investment Fund Manager	27.40	6.06
Recreation Leader	27.40	7.78
Agribusiness Manager	26.90	6.26
Veterinarian	26.90	7.03
Banker	26.80	9.04
Navy Officer	26.70	9.70
Chiropractor	26.45	11.24
Engineer	26.30	10.49
Dietitian	26.05	8.79
Advertising Executive	25.70	8.48
Nursing Home Administrator	25.60	9.80
Optometrist	25.45	11.42
Architect	25.30	8.95
Purchasing Agent	25.30	9.33
Elementary Teacher	24.80	9.86
Registered Nurse	24.70	9.79
Army Officer	24.25	9.24
Artist, Fine	23.95	14.19

TABLE II (Continued)

Occupation	Means (N-20)	Std. Dev.
Interior Decorator	23.95	7.67
Social Science Teacher	23.90	10.05
Artist, Commercial	23.70	13.33
YWCA/YMCA Director	22.90	9.84
Occupational Therapist	22.85	5.44
Systems Analyst	22.70	12.44
School Administrator	22.30	10.73
Personnel Director	22.10	9.38
Lawyer	22.00	7.82
Elect. Public Official	22.00	8.32
Physician	21.85	10.40
Reporter	21.70	7.20
Physical Ed. Teacher	21.50	11.33
English Teacher	21.15	6.98
Medical Technologist	21.05	14.45
Librarian	20.25	5.62
Buyer	20.20	10.50
Foreign Lang. Teacher	19.40	4.25
Mathematician	19.40	8.89
Biologist	19.25	7.89
Guidance Counselor	19.25	12.21
Special Ed. Teacher	19.20	10.74
Life Insurance Agent	19.15	9.19
Speech Pathologist	19.00	10.25
Public Relations Director	16.10	8.97
Psychologist	16.10	8.27
Voc. Ag. Teacher	16.05	11.48
Chamber of Comm. Exec.	15.55	7.34
Business Ed. Teacher	15.15	9.29
Geographer	14.90	8.95
Social Worker	13.50	8.19
Chemist	13.10	11.20
Public Administrator	12.80	10.39
Art Teacher	12.70	7.99
Physicist	12.55	10.12
Minister	11.45	10.85
Sociologist	7.10	9.01

In answer to the research question, the Indian and non-Indian students' mean scores show that the students evaluate occupations very similar when compared to each other. This is evidenced when observing the top six occupations even though they are ranked by both groups in a different order. The rest of the occupations descend and spread, with exception to the last ranked occupation, which is the same for both groups.

2. What are the vocational aspirations of American Indian female students as compared with the non-Indian female students?

The female Indian students ranked the occupations in rank order as shown in Table III which illustrates the occupations in rank order with descending mean scores. The occupation of beautician obtained the highest total mean score. The physicist occupation received the lowest total mean score.

The Indian female students' high mean score of 49.70 and their low mean score of -2.70 when compared with Women-in-General Samples highest mean score of 43.90 and their lowest mean score of 13.90 presents a likable comparison in terms of the highest mean score.

The first five occupations are all "blue collar" and "hand" work; from banker down, the occupations are all "white collar," except for police officer, photographer, computer programmer, recreation leader, and forester.

Table IV presents the occupations by rank order in descending mean score rating. The occupation beautician received the highest score. The occupation physicist obtained the lowest mean score. Table IV represents ranking order for the non-Indian female students.

TABLE III

MEANS AND STANDARD DEVIATIONS FOR INDIAN FEMALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES

Occupation	Means (N-20)	Std. Dev.
Beautician	49.70	9.65
Dental Assistant	48.25	8.81
Secretary	46.20	11.82
Farmer	45.55	7.34
Rad. Tech. (X-Ray)	42.25	7.48
Banker	40.10	7.44
Executive Housekeeper	38.15	11.38
Special Ed. Teacher	36.70	11.66
Credit Manager	35.45	10.24
Physical Ed. Teacher	35.20	9.09
Police Officer	34.80	11.92
Flight Attendant	34.45	11.53
Elementary Teacher	34.35	10.03
Dental Hygienist	34.10	13.00
Pharmacist	33.70	8.86
I.R.S. Agent	33.65	10.40
Math-Science Teacher	33.40	6.13
Dept. Store Manager	33.15	12.24
Buyer	32.85	11.31
Chamber of Comm. Exec.	32.45	9.84
Business Ed. Teacher	31.30	11.43
YWCA/YMCA Director	31.10	13.47
Home Econ. Teacher	30.65	14.67
Purchasing Agent	29.00	13.76
Nursing Home Administrator	28.85	10.93
Licensed Practical Nurse	28.65	11.99
Army Officer	28.50	10.06
Restaurant Manager	28.25	13.55
Navy Officer	28.05	9.92
Advertising Executive	28.00	9.46
Personnel Director	27.85	10.69
Photographer	27.70	8.36
Computer Programmer	26.95	9.00
Air Force Officer	26.35	10.47
Recreation Leader	26.05	11.95
School Administrator	25.95	9.89
Musician	25.45	7.51
College Professor	25.30	7.42
Optometrist	25.15	10.95
Dietitian	24.85	10.00
Biologist	24.20	10.01
Life Insurance Agent	24.05	12.08
Social Science Teacher	23.85	10.66
Medical Technologist	23.40	10.37

TABLE III (Continued)

Occupation	Means (N-20)	Std. Dev.
Speech Pathologist	23.00	10.98
Systems Analyst	22.55	10.23
Elect. Public Official	22.50	11.60
Physical Therapist	22.30	13.61
Dentist	21.75	11.96
Realtor	21.05	13.23
Marketing Executive	20.45	10.32
Geographer	20.45	9.87
Librarian	20.25	9.85
Chiropractor	20.25	12.05
English Teacher	19.60	9.48
Veterinarian	18.65	10.29
Foreign Lang. Teacher	17.40	10.44
Artist, Fine	17.30	9.94
Guidance Counselor	16.55	15.68
Registered Nurse	16.30	12.70
Forester	16.15	13.30
Occupational Therapist	16.15	12.58
Social Worker	16.10	12.27
Lawyer	15.35	11.93
Public Administrator	15.15	10.86
Engineer	15.05	11.72
Reporter	14.75	10.20
Artist, Commercial	14.25	9.35
Public Relations Director	12.55	10.78
Geologist	12.55	12.30
Biologist	12.00	11.01
Physician	11.40	14.26
Mathematician	10.95	12.61
Interior Decorator	9.45	10.52
Minister	9.15	15.43
Architect	8.35	12.18
Art Teacher	6.45	14.61
Chemist	6.35	12.88
Sociologist	6.20	9.75
Psychologist	1.60	10.14
Physicist	-2.70	12.43

TABLE IV

MEANS AND STANDARD DEVIATIONS FOR NON-INDIAN FEMALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES

Occupation	Means (N-20)	Std. Dev.
Beautician	43.40	13.40
Farmer	43.40	8.59
Dental Assistant	42.05	8.03
Secretary	41.65	8.87
Special Ed. Teacher	38.25	12.85
Banker	37.10	9.11
Chamber of Comm. Exec.	35.30	7.96
Dept. Store Manager	34.90	9.59
Elementary Teacher	34.90	12.66
YWCA/YMCA Director	33.45	14.60
Advertising Exec.	33.20	8.10
Flight Attendant	33.15	8.59
Executive Housekeeper	33.00	13.23
Police Officer	33.00	11.48
Rad. Tech. (X-Ray)	32.80	8.07
Credit Manager	32.35	11.53
Photographer	32.30	10.30
Pharmacist	31.85	8.44
I.R.S. Agent	31.80	13.71
Math-Science Teacher	31.25	7.04
Restaurant Manager	30.50	11.90
Buyer	30.35	10.31
Purchasing Agent	30.30	11.90
Personnel Director	30.20	10.45
School Administrator	30.10	10.67
Home Econ. Teacher	29.90	14.30
Recreation Leader	29.40	11.50
College Professor	28.95	8.99
English Teacher	28.85	12.40
Army Officer	28.60	10.16
Navy Officer	28.15	8.93
Musician	28.10	8.58
Nursing Home Administrator	28.05	11.90
Air Force Officer	27.95	8.27
Speech Pathologist	27.80	7.89
Physical Ed. Teacher	27.75	11.32
Social Science Teacher	27.50	10.13
Librarian	27.15	9.95
Dietitian	27.10	9.08
Computer Programmer	26.75	7.70
Marketing Executive	26.00	8.84
Business Ed. Teacher	25.70	11.34
Dental Hygienist	25.45	10.12

TABLE IV (Continued)

Occupation	Means (N-20)	Std. Dev.
Elect. Public Official	25.20	12.07
Accountant	25.00	11.19
Optometrist	24.70	9.87
Life Insurance Agent	24.50	11.68
Systems Analyst	24.20	9.15
Geographer	24.05	10.58
Realtor	23.45	11.02
Licensed Practical Nurse	23.05	13.89
Public Relations Dir.	21.55	10.10
Social Worker	21.55	11.00
Artist, Fine	21.30	12.22
Lawyer	21.30	11.81
Public Administrator	21.20	10.08
Foreign Lang. Teacher	21.10	9.28
Reporter	21.10	11.80
Dentist	20.65	10.88
Registered Nurse	20.15	11.43
Guidance Counselor	20.10	14.53
Medical Technologist	19.70	10.03
Chiropractor	19.25	10.43
Physical Therapist	12.15	11.60
Artist, Commercial	18.70	11.79
Veterinarian	18.65	11.08
Forester	18.15	10.78
Engineer	16.95	10.55
Geologist	15.70	11.21
Occupational Therapist	15.40	10.52
Minister	15.25	17.47
Mathematician	14.65	9.46
Physician	14.25	11.49
Interior Decorator	13.65	13.87
Architect	13.55	13.43
Sociologist	12.20	11.80
Art Teacher	11.85	13.72
Biologist	10.75	10.36
Chemist	7.45	11.14
Psychologist	7.15	11.47
Physicist	-1.70	12.97

The female non-Indian students with a high mean score of 43.40 and a low mean score of -1.70 in comparison with the Women-in-General Samples on the SCII Occupational Scales having a high mean score of 43.90 and a low mean score of 13.90 illustrates a very close match concerning the highest mean scores.

The five top occupations are all "hand" work and "blue collar," while from the banker occupation on down, the occupations are all "white collar" occupations, except for the police officer, radiologic technologist (x-ray), photographer, recreation leader, computer programmer, and forester occupations.

The answer to the research question concerning comparison of the non-Indian female students with Indian female students is that they evaluate occupations similar to each other. The first four occupations show this to be true even though the occupations do not have the same rank order. The remainder of the occupations descend and spread, except for the last two occupations which are ranked in the same order.

3. What are the vocational aspirations of American Indian female students at each school as compared with the non-Indian female students at each school?

Table V presents the occupations by rank order in descending mean scores of Indian female students at School A (rural school). the beautician occupation obtained the highest mean score and was ranked first. The physicist occupation received the lowest mean score and was ranked last.

At School A, the highest mean score of the female Indian students of 53.90 and their lowest mean score of -8.00 when compared with the Women-in-General Samples of 43.90 for the highest and 13.90 for the lowest indicated a substantial comparison relative to the high scores.

TABLE V

MEANS AND STANDARD DEVIATIONS FOR INDIAN FEMALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL A

Occupation	Means (N-10)	Std. Dev.
Beautician	53.90	9.92
Dental Assistant	51.50	8.57
Secretary	49.10	9.43
Farmer	48.70	7.54
Rad. Tech. (X-Ray)	43.20	8.18
Executive Housekeeper	42.50	11.63
Banker	42.30	6.17
Dental Hygienist	36.80	13.85
Special Ed. Teacher	36.80	14.88
Physical Ed. Teacher	36.50	6.20
Elementary Teacher	36.30	12.79
Credit Manager	36.00	7.32
Home Econ. Teacher	35.50	15.25
Flight Attendant	35.20	12.56
Business Ed. Teacher	34.50	10.93
Chamber of Comm. Exec.	33.80	7.52
Buyer	33.60	8.40
Police Officer	33.60	11.88
Dept. Store Manager	32.30	10.20
Pharmacist	32.00	8.35
I.R.S. Agent	31.80	11.04
Math-Science Teacher	31.80	5.77
Licensed Practical Nurse	31.30	11.74
YWCA/YMCA Director	30.60	15.64
Nursing Home Administrator	30.00	9.25
Personnel Director	28.70	9.39
Advertising Executive	27.30	7.57
Restaurant Manager	27.10	11.66
School Administrator	26.20	10.83
Purchasing Agent	26.00	12.46
Life Insurance Agent	25.90	10.96
Photographer	25.80	8.87
Army Officer	25.50	11.21
Navy Officer	25.10	10.74
Recreation Leader	25.10	11.76
Air Force Officer	24.70	11.60
Social Science Teacher	24.50	11.79
Dietitian	23.40	8.42
College Professor	23.30	7.42
Musician	22.90	7.25
Elect. Public Official	22.80	11.07
Speech Pathologist	22.40	13.56
Realtor	22.20	11.56

TABLE V (Continued)

Occupation	Means (N-10)	Std. Dev.
Computer Programmer	21.90	7.89
English Teacher	21.60	11.96
Optometrist	21.60	9.94
Physical Therapist	20.90	9.57
Medical Technologist	20.70	8.78
Accountant	20.40	10.28
Chiropractor	19.20	12.06
Dentist	19.00	12.20
Marketing Executive	18.80	9.75
Guidance Counselor	17.90	19.51
Systems Analyst	17.70	9.98
Foreign Lang. Teacher	17.30	11.53
Librarian	17.20	8.19
Geographer	16.70	10.53
Veterinarian	16.70	9.04
Registered Nurse	16.30	13.45
Artist, Fine	15.80	11.74
Social Worker	15.30	13.05
Public Administrator	13.30	10.11
Artist, Commercial	13.10	9.95
Occupational Therapist	12.80	10.02
Forester	12.30	11.23
Lawyer	12.20	11.68
Reporter	12.20	9.94
Public Relations Dir.	11.40	9.42
Engineer	10.30	11.68
Minister	9.90	18.66
Biologist	9.00	10.30
Geologist	8.70	11.45
Interior Decorator	8.00	9.35
Mathematician	7.10	12.78
Physician	6.20	10.48
Art Teacher	4.60	15.66
Architect	4.50	12.85
Sociologist	3.00	8.62
Chemist	0.20	11.90
Psychologist	-2.20	9.50
Physicist	-8.00	11.99

The top five occupations in rank order are "hand" work and "blue collar;" from executive housekeeper down, the occupations are all "white collar," except for police officer, photographer, recreation leader, computer programmer, and forester.

In Table VI, for the non-Indian female students at School A, it shows the occupations ranked in order of descending mean scores. The beautician occupation received the highest mean score rating and was ranked first. The occupation physicist obtained the lowest mean score rating and was ranked last.

The highest mean score, 45.00, of the female non-Indian students at School A and their lowest mean score of -2.50 when compared with Women-in-General Samples of 43.90 for the highest and 13.90 for the lowest are impressive concerning the higher scores.

The top four occupations that are rank ordered are "blue collar" and "hand" work. From banker down, the occupations are "white collar," except for police officer, radiologic technologist (x-ray), photographer, recreation leader, computer programmer, and forester.

Table VII presents the occupations by rank order in descending mean scores of the female Indian students at School B (suburban school). The occupation physicist obtained the lowest mean score rating.

The Indian female students at School B, with their highest mean score of 45.50 and their lowest mean score of 2.60, when compared with Women-in-General having a high mean score of 43.90 and a low mean score of 13.90 indicated similar high mean scores.

The first five occupations in rank order of their means are "blue collar" and "hand" work, while the banker occupation down, the occupations are "white collar," except for police officer, computer programmer, photographer, recreation leader, and forester.

TABLE VI

MEANS AND STANDARD DEVIATIONS FOR NON-INDIAN FEMALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL A

Occupation	Means (N-10)	Std. Dev.
Beautician	45.00	12.39
Farmer	44.40	7.44
Secretary	44.10	10.94
Dental Assistant	40.80	10.56
Banker	40.30	8.56
Special Ed. Teacher	36.60	14.82
Chamber of Comm. Exec.	36.20	6.23
Dept. Store Manager	35.80	7.36
Credit Manager	35.20	10.20
Elementary Teacher	34.90	15.01
Buyer	34.10	6.57
Executive Housekeeper	33.60	13.29
I.R.S. Agent	32.50	13.51
YWCA/YMCA Director	31.90	14.28
Advertising Executive	31.80	8.64
Math-Science Teacher	31.70	6.95
Police Officer	31.70	11.16
Flight Attendant	31.60	10.42
Pharmacist	31.40	8.30
Restaurant Manager	31.30	11.94
Home Econ. Teacher	30.90	15.27
Rad. Tech. (X-Ray)	30.10	9.56
School Administrator	30.00	9.49
Personnel Director	29.80	10.12
College Professor	29.70	10.72
English Teacher	29.60	10.24
Purchasing Agent	29.40	12.68
Business Ed. Teacher	29.20	11.01
Photographer	28.90	8.53
Public Relations Dir.	28.80	10.41
Social Science Teacher	28.40	8.81
Accountant	28.10	9.68
Musician	27.70	6.86
Army Officer	27.20	10.25
Recreation Leader	26.50	10.79
Librarian	26.30	11.68
Physical Ed. Teacher	26.00	12.06
Navy Officer	25.90	9.47
Life Insurance Agent	25.60	11.87
Computer Programmer	25.40	8.68
Air Force Officer	25.40	8.86
Elect. Public Official	25.30	12.48
Dietitian	25.10	7.03

TABLE VI (Continued)

Occupation	Means (N-10)	Std. Dev.
Speech Pathologist	24.40	4.93
Marketing Executive	24.10	7.05
Optometrist	23.80	9.74
Realtor	23.30	10.65
Systems Analyst	22.60	10.96
Geographer	22.00	12.26
Licensed Practical Nurse	21.90	13.71
Dental Hygienist	20.80	9.04
Foreign Lang. Teacher	20.70	8.88
Lawyer	20.40	11.25
Public Relations Dir.	19.60	9.70
Public Administrator	19.50	10.14
Dentist	19.20	10.06
Artist, Fine	18.80	11.47
Social Worker	18.40	11.62
Reporter	17.80	12.51
Guidance Counselor	17.60	12.18
Medical Technologist	17.00	9.76
Chiropractor	16.50	10.21
Forester	16.20	9.72
Mathematician	15.80	10.45
Registered Nurse	15.60	10.54
Veterinarian	15.20	7.39
Engineer	14.70	11.81
Artist, Commercial	14.30	9.07
Minister	14.30	15.83
Physical Therapist	13.90	11.32
Geologist	13.40	12.64
Physician	12.80	12.13
Interior Decorator	11.40	14.83
Architect	10.60	14.49
Occupational Therapist	10.60	11.86
Sociologist	10.50	13.51
Biologist	8.90	10.70
Art Teacher	6.70	13.80
Chemist	5.40	12.07
Psychologist	5.10	11.34
Physicist	-2.50	14.42

TABLE VII

MEANS AND STANDARD DEVIATIONS FOR INDIAN FEMALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL B

Occupation	Means (N-10)	Std. Dev.
Beautician	45.50	7.68
Dental Assistant	45.00	8.18
Decretary	43.30	13.69
Farmer	42.40	5.91
Rad. Tech. (X-Ray)	41.30	7.02
Banker	37.90	8.25
Special Ed. Teacher	36.60	8.10
Police Officer	36.00	12.47
I.R.S. Agent	35.50	9.94
Pharmacist	35.40	9.45
Math-Science Teacher	35.00	6.32
Credit Manager	34.00	12.92
Dept. Store Manager	34.00	14.51
Physical Ed. Teacher	33.90	11.50
Executive Housekeeper	33.80	9.81
Flight Attendant	33.70	11.14
Elementary Teacher	32.40	6.35
Buyer	32.10	14.09
Purchasing Agent	32.00	14.98
Computer Programmer	32.00	7.21
YWCA/YMCA Director	31.60	11.74
Army Officer	31.50	8.25
Dental Hygienist	31.40	12.20
Chamber of Comm. Exec.	31.10	11.99
Navy Officer	31.00	8.54
Photographer	29.60	7.81
Restaurant Manager	29.40	15.77
Advertising Executive	28.70	11.42
Optometrist	28.70	11.25
Bus. Ed. Teacher	28.10	11.57
Musician	28.00	7.21
Accountant	28.00	8.60
Air Force Officer	28.00	9.53
Nursing Home Admin.	27.70	12.80
Systems Analyst	27.40	8.30
College Professor	27.30	7.23
Personnel Director	27.00	12.30
Recreation Leader	27.00	12.69
Dietitian	26.30	11.63
Medical Technologist	26.10	11.56
Licensed Practical Nurse	26.00	12.26
Home Econ. Teacher	25.80	13.01
School Administrator	25.70	9.44

TABLE VII (Continued)

Occupation	Means (N-10)	Std. Dev.
Dentist	24.50	11.67
Geographer	24.20	7.97
Physical Therapist	23.70	17.18
Speech Pathologist	23.60	8.37
Librarian	23.30	10.81
Social Science Teacher	23.20	10.00
Elect. Public Official	22.20	12.70
Life Insurance Agent	22.20	13.42
Marketing Executive	22.10	11.12
Chiropractor	21.30	12.59
Veterinarian	20.60	11.54
Forester	20.00	14.64
Realtor	19.90	15.26
Engineer	19.80	10.17
Occupational Therapist	19.50	14.45
Artist, Fine	18.80	8.11
Lawyer	18.50	11.91
English Teacher	17.60	6.15
Foreign Lang. Teacher	17.50	9.87
Reporter	17.30	10.31
Public Administrator	17.00	11.80
Social Worker	16.90	12.09
Physician	16.60	16.11
Geologist	16.40	12.46
Registered Nurse	16.30	12.63
Artist, Commercial	15.40	9.09
Guidance Counselor	15.20	11.59
Biologist	15.00	11.39
Mathematician	14.80	11.81
Public Relations Dir.	13.70	12.40
Chemist	12.50	11.16
Architect	12.20	10.72
Interior Decorator	10.90	11.90
Sociologist	9.40	10.18
Minister	8.40	12.38
Art Teacher	8.30	14.06
Psychologist	5.40	9.74
Physicist	2.60	10.95

For the female non-Indian students at School B, Table VIII shows their mean scores in descending rank order with corresponding occupations. The dental assistant occupation received the highest mean score and was ranked first. The physicist occupation received the lowest mean score and was ranked last.

The highest mean score of 43.30 and the lowest mean score of -0.90 belonging to the non-Indian female students at School B, when compared with the Women-in-General Samples' high mean score of 43.90 and low mean score of 13.90 indicates some similarity.

The top seven occupations are "blue collar" and "hand" work; and from YWCA/YMCA director down, the occupations are "white collar" occupations, except for police officer, recreation leader, computer programmer, and forester.

In response to the research question, the assessed vocational aspirations of the non-Indian and Indian female students at these two schools are similar in terms of their rank order of occupations. The top of the list of occupations were basically the same, only in a different arrangement. The middle of the rank order of occupations showed some variations. The bottom of the list showed some similarity of occupations. The general conclusion is that there is similarity at the two schools between the American Indian student and the non-Indian student.

4. What are the vocational aspirations of American Indian male students at each school as compared with the non-Indian male students at each school?

In Table IX, for the Indian male students at School A, it shows the occupations ranked in order of mean scores. The skilled crafts position received the highest mean score rating. The sociologist occupation received the lowest mean score.

TABLE VIII

MEANS AND STANDARD DEVIATIONS FOR NON-INDIAN FEMALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL B

Occupation	Means (N-10)	Std. Dev.
Dental Assistant	43.30	4.60
Farmer	42.40	9.91
Beautician	41.80	14.83
Special Ed. Teacher	39.90	11.10
Secretary	39.20	5.75
Photographer	35.70	11.20
Rad. Tech. (X-Ray)	35.50	5.46
YWCA/YMCA Director	35.00	15.51
Elementary Teacher	34.90	10.62
Flight Attendant	34.70	6.48
Advertising Executive	34.60	7.71
Chamber of Comm. Exec.	34.40	9.65
Police Officer	34.30	12.24
Dept. Store Manager	34.00	11.76
Banker	33.90	8.90
Executive Housekeeper	32.40	13.86
Pharmacist	32.30	8.99
Recreation Leader	32.30	12.00
Purchasing Agent	31.20	11.68
Speech Pathologist	31.20	9.03
I.R.S. Agent	31.10	14.59
Math-Sci. Teacher	30.80	7.48
Personnel Director	30.60	11.31
Air Force Officer	30.50	7.18
Navy Officer	30.40	8.22
School Administrator	30.20	12.25
Dental Hygienist	30.10	9.30
Army Officer	30.00	10.42
Restaurant Manager	29.70	12.45
Credit Manager	29.50	12.59
Physical Ed. Teacher	29.50	10.88
Dietitian	29.10	10.75
Home Econ. Teacher	28.90	14.00
Musician	28.50	10.39
College Professor	28.20	7.38
English Teacher	28.10	14.78
Computer Programmer	28.10	6.77
Librarian	28.00	8.42
Marketing Executive	27.90	10.35
Nursing Home Admin.	27.30	13.76
Buyer	26.60	12.25
Social Science Teacher	26.60	11.71
Geographer	26.10	8.75

TABLE VIII (Continued)

Occupation	Means (N-10)	Std. Dev.
Systems Analyst	25.80	7.15
Optometrist	25.60	10.45
Elect. Public Official	25.10	12.31
Registered Nurse	24.70	10.88
Social Worker	24.70	9.92
Reporter	24.40	10.63
Physical Therapist	24.40	9.73
Licensed Prac. Nurse	24.20	14.71
Artist, Fine	23.80	13.03
Realtor	23.60	11.96
Public Relations Dir.	23.50	10.63
Life Insurance Agent	23.40	12.02
Artist, Commercial	23.10	12.97
Public Administrator	22.90	10.27
Guidance Counselor	22.60	16.85
Medical Technologist	22.40	10.05
Lawyer	22.20	12.90
Business Ed. Teacher	22.20	11.09
Dentist	22.10	12.00
Veterinarian	22.10	13.35
Chiropractor	22.00	10.42
Accountant	21.90	12.22
Foreign Lang. Teacher	21.50	10.14
Occupational Therapist	20.20	6.46
Forester	20.10	11.94
Engineer	19.20	9.16
Geologist	18.00	9.68
Art Teacher	17.00	12.16
Architect	16.50	12.31
Minister	16.20	19.79
Interior Decorator	15.90	13.22
Physician	15.70	11.26
Sociologist	13.90	10.25
Mathematician	13.50	8.76
Biologist	12.60	10.22
Chemist	9.50	10.34
Psychologist	9.20	11.83
Physicist	-0.90	12.07

TABLE IX

MEANS AND STANDARD DEVIATIONS FOR INDIAN MALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL A

Occupation	Means (N-10)	Std. Dev.
Skilled Crafts	43.40	14.62
Computer Programmer	42.00	8.34
Farmer	41.00	10.68
Police Officer	39.20	9.10
Photographer	36.50	6.77
Forester	36.20	7.74
Elementary Teacher	35.40	9.38
Rad. Tech. (X-Ray)	35.20	6.07
College Professor	35.10	6.51
Beautician	34.30	5.95
Executive Housekeeper	33.50	7.09
I.R.S. Agent	33.40	8.49
Musician	32.70	5.93
Air Force Officer	32.40	5.08
Restaurant Manager	31.60	9.69
Credit Manager	31.00	7.86
Geologist	31.00	8.59
Licensed Prac. Nurse	30.90	6.62
Physical Therapist	30.70	8.78
Dept. Store Manager	30.40	6.19
Navy Officer	30.20	8.01
Math-Sci. Teacher	29.80	12.41
Dentist	29.70	9.76
Flight Attendant	29.60	5.80
Veterinarian	29.60	6.92
Social Science Teacher	29.40	9.29
Physical Ed. Teacher	29.20	13.70
Engineer	28.90	9.13
Realtor	28.80	7.41
Accountant	28.70	7.63
Registered Nurse	28.30	8.21
Occupational Therapist	28.30	5.54
Architect	28.20	8.18
Artist, Fine	27.90	8.74
Interior Decorator	27.70	7.30
Agribusiness Manager	27.70	10.67
Artist, Commercial	26.80	9.65
Army Officer	26.80	7.19
Special Ed. Teacher	25.80	12.33
Recreation Leader	25.30	8.29
Purchasing Agent	25.10	8.79
Marketing Executive	25.00	5.73
YWCA/YMCA Director	25.00	10.80

TABLE IX (Continued)

Occupation	Means (N-10)	Std. Dev.
Advertising Executive	24.70	8.07
Pharmacist	24.70	4.37
Voc. Agric. Teacher	24.70	9.31
School Administrator	24.20	8.99
Art Teacher	23.50	10.99
Foreign Lang. Teacher	23.40	6.93
Librarian	23.40	7.17
Public Relations Dir.	23.40	10.36
Dietitian	23.20	9.28
Investment Fund Manager	23.10	5.22
Chiropractor	23.00	9.37
Personnel Director	22.90	9.32
Systems Analyst	22.70	12.18
English Teacher	22.60	7.59
Medical Technologist	22.60	11.95
Reporter	22.50	6.29
Banker	21.40	6.13
Biologist	21.30	7.96
Guidance Counselor	20.90	10.08
Elect. Public Official	20.30	9.03
Mathematician	20.00	8.07
Speech Pathologist	19.80	12.02
Lawyer	19.30	10.44
Physician	18.80	11.75
Business Ed. Teacher	18.30	8.69
Optometrist	17.60	13.82
Buyer	16.50	7.41
Minister	15.90	10.92
Chamber of Comm. Exec.	15.70	8.03
Social Worker	15.70	8.84
Life Insurance Agent	15.30	9.38
Geographer	15.20	7.05
Public Relations Dir.	14.90	7.22
Physicist	14.90	11.06
Psychologist	14.10	8.43
Chemist	12.60	10.42
Public Administrator	12.40	11.76
Sociologist	8.20	11.24

At School A, the highest mean score of the male Indian students of 43.40 and their lowest mean score of 8.20 when compared with the Men-in-General having the highest mean score of 36.70 and the lowest of 15.10 indicated a likable comparison concerning high mean scores.

The first ten occupations are "blue collar" and "hand" work, except for elementary teacher and college professor; from executive housekeeper down, the occupations are all "white collar," except for recreation leader and vocational agriculture teacher.

Table X presents the occupations by rank order in descending mean score rating of the non-Indian male students at School A. The farmer occupation received the highest mean score. The sociologist occupation obtained the lowest mean score rating.

At School A, the non-Indian male students' highest score of 43.00 and their lowest score of 6.00 were compared with the Men-in-General highest score of 36.70 and lowest score of 15.10. This comparison indicates a positive view concerning high scores.

The first ten occupations are "blue collar" and "hand" work, except for college professor and musician; from geologist down, the occupations are all "white collar," except for recreation leader and vocational agriculture teacher.

For the Indian male students at School B (suburban school), Table XI shows the occupations in rank order of mean scores. The occupation police officer received the highest mean score rating. The occupation physicist obtained the lowest mean score rating.

School B Indian male students' highest mean score of 40.90 and lowest mean score of 7.10 were compared with the Men-in-General highest mean score of 36.70 and the lowest mean score of 15.10; it shows a similarity concerning high scores.

TABLE X

MEANS AND STANDARD DEVIATIONS FOR NON-INDIAN MALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL A

Occupation	Means (N-10)	Std. Dev.
Farmer	43.00	8.22
Photographer	40.80	9.31
Police Officer	40.00	11.91
Computer Programmer	39.50	5.99
Skilled Crafts	39.50	7.12
Rad. Tech. (X-Ray)	37.10	8.35
Forester	36.60	7.97
College Professor	33.80	5.25
Musician	33.70	9.06
Beautician	33.40	4.06
Geologist	33.20	8.97
Restaurant Manager	31.80	7.51
Realtor	30.90	6.56
Dentist	30.10	5.47
Licensed Prac. Nurse	30.00	3.53
Artist, Commercial	29.60	12.96
Artist, Fine	29.10	14.90
Dept. Store Manager	29.00	4.88
Credit Manager	28.90	9.06
Executive Housekeeper	28.80	6.65
I.R.S. Agent	28.80	6.78
Flight Attendant	28.20	5.39
Air Force Officer	28.10	6.84
Physical Therapist	28.00	10.96
Veterinarian	27.60	8.25
Agribusiness Manager	27.40	6.85
Architect	27.30	9.99
Math-Sci. Teacher	26.80	12.69
Accountant	26.60	6.50
Pharmacist	26.60	7.90
Elementary Teacher	26.60	8.41
Recreation Leader	26.50	5.04
Marketing Executive	26.20	8.52
Registered Nurse	26.20	9.31
Engineer	26.10	5.15
Advertising Executive	25.70	7.10
Interior Decorator	25.30	7.97
Navy Officer	25.10	6.64
Investment Fund Mgr.	24.80	6.60
Occupational Therapist	24.60	5.38
Reporter	23.90	5.74
Social Science Teacher	23.80	6.39
Chiropractor	23.50	6.70

TABLE X (Continued)

Occupation	Means (N-10)	Std. Dev.
Banker	22.60	7.38
Dietitian	22.60	8.88
Nursing Home Admin.	22.20	6.83
Army Officer	22.10	6.84
Lawyer	21.60	5.76
English Teacher	21.30	4.11
Optometrist	21.30	8.99
Physical Ed. Teacher	21.30	11.27
Purchasing Agent	21.20	5.79
Biologist	21.00	6.63
Librarian	20.40	4.77
Foreign Lang. Teacher	20.00	3.71
Systems Analyst	20.00	10.55
Physician	19.80	8.80
YWCA/YMCA Director	19.40	5.08
School Administrator	19.30	7.50
Elect. Public Official	19.20	6.11
Geographer	18.90	6.40
Special Ed. Teacher	18.90	10.22
Mathematician	18.70	6.02
Personnel Director	18.30	6.63
Medical Technologist	18.20	12.31
Speech Pathologist	17.30	8.12
Life Insurance Agent	16.20	7.22
Buyer	15.50	6.42
Guidance Counselor	15.40	7.53
Public Relations Dir.	15.20	7.21
Voc. Agric. Teacher	15.10	12.18
Art Teacher	15.00	8.21
Physicist	13.80	5.47
Psychologist	13.60	8.49
Chamber of Comm. Exec.	13.30	6.15
Business Ed. Teacher	13.20	9.20
Chemist	11.90	8.72
Social Worker	11.80	5.94
Public Administrator	8.70	7.51
Minister	8.30	7.78
Sociologist	6.00	7.41

TABLE XI

MEANS AND STANDARD DEVIATIONS FOR INDIAN MALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL B

Occupation	Means (N-10)	Std. Dev.
Police Officer	40.90	9.68
Computer Programmer	40.50	7.49
Rad. Tech. (X-Ray)	38.80	7.87
Skilled Crafts	37.60	11.75
I.R.S. Agent	36.60	8.42
Executive Housekeeper	35.90	8.61
Farmer	35.60	9.28
Photographer	35.50	11.69
Beautician	35.10	7.69
Flight Attendant	34.30	8.45
Licensed Prac. Nurse	34.30	7.01
Credit Manager	34.10	12.80
Elementary Teacher	33.20	11.36
Realtor	32.40	7.50
Air Force Officer	32.00	13.72
Restaurant Manager	31.70	8.76
Registered Nurse	31.70	11.67
Physical Therapist	31.40	12.19
Forester	31.40	11.06
Navy Officer	31.40	15.68
Musician	31.20	10.63
Dept. Store Manager	31.20	7.28
College Professor	30.50	8.66
Special Ed. Teacher	30.40	12.54
Dietitian	30.30	9.75
Nursing Home Admin.	30.30	10.50
Math-Sci. Teacher	30.20	13.04
Recreation Leader	29.70	6.65
Dentist	29.60	8.72
Army Officer	29.50	12.29
Social Science Teacher	29.50	9.70
Chiropractor	29.00	10.88
Pharmacist	28.30	13.94
Optometrist	27.80	8.72
Purchasing Agent	27.40	10.10
School Administrator	26.50	11.23
Physical Ed. Teacher	26.10	10.49
Agribusiness Teacher	26.00	7.30
Personnel Director	26.00	9.23
Accountant	25.90	5.17
Veterinarian	25.90	8.60
Geologist	25.50	11.87
Occupational Therapist	25.20	5.49

TABLE XI (Continued)

Occupation	Means (N-10)	Std. Dev.
YWCA/YMCA Director	25.10	9.90
Engineer	24.90	9.69
Advertising Executive	24.40	10.83
Lawyer	24.30	6.48
English Teacher	23.20	7.13
Banker	23.10	7.11
Elect. Public Official	23.10	6.64
Guidance Counselor	22.90	12.47
Speech Pathologist	22.80	9.77
Interior Decorator	22.70	9.99
Architect	22.60	8.51
Medical Technologist	22.60	14.52
Foreign Lang. Teacher	22.20	3.61
Investment Fund Manager	21.90	10.91
Systems Analyst	21.90	9.04
Librarian	21.70	4.99
Reporter	21.70	11.21
Marketing Executive	21.70	12.30
Physician	20.90	6.64
Buyer	20.50	13.69
Artist, Commercial	20.00	14.36
Business Ed. Teacher	19.90	11.62
Artist, Fine	19.80	16.57
Voc. Agric. Teacher	18.80	12.97
Life Insurance Agent	18.10	12.10
Chamber of Comm. Executive	17.80	9.17
Biologist	17.10	8.49
Public Administrator	16.50	9.70
Minister	16.00	11.89
Social Worker	15.80	8.84
Public Relations Dir.	15.00	10.73
Psychologist	14.70	8.93
Mathematician	14.50	8.40
Art Teacher	13.20	9.22
Chemist	12.00	9.03
Geographer	11.90	10.16
Sociologist	8.80	7.58
Physicist	7.10	7.55

The top nine occupations are "hand" work and "blue collar," except for I.R.S. agent and executive housekeeper. From flight attendant down, the occupations are all "white collar," except for forester, recreation leader, and vocational agriculture teacher.

Table XII presents the occupations by rank order in descending mean scores of the non-Indian male students at School B. The radiologic technologist (x-ray) occupation obtained the highest mean score rating. The sociologist occupation received the lowest mean score rating.

At School B, the male non-Indian students' highest mean score of 40.00 and lowest mean score of 8.20 were compared with the Men-in-General highest mean score of 36.70 and lowest mean score of 15.10. It shows a likable comparison relative to the high mean scores.

The top three occupations are "blue collar" and "hand" work. From realtor down, the occupations are all "white collar," except for photographer, skilled crafts, police officer, beautician, forester, recreation leader, and vocational agriculture teacher.

The response to the research question is that by observation, generally, the Indian male students and the non-Indian male students at these two schools are similar concerning vocational aspirations. They tend to evaluate occupations on a line of similar perceptions. However, students at School B could be an exception. The top listings present a variation in rank order. The occupations at the bottom of the lists are again similar. A general conclusion is that these students have close perceptions of the occupations.

Results of Analysis

The presentation of data for this study will be reported as it

TABLE XII

MEANS AND STANDARD DEVIATIONS FOR NON-INDIAN MALE STUDENTS IN RANK ORDER OF OCCUPATIONAL SCALES SCHOOL B

Occupation	Means (N-10)	Std. Dev.
Rad. Tech. (X-Ray)	40.00	7.85
Farmer	38.80	9.25
Computer Programmer	37.80	8.99
Realtor	35.80	7.64
Restaurant Manager	35.10	9.75
I.R.S. Agent	35.00	11.19
Dentist	34.50	10.65
Dept. Store Manager	34.20	7.96
Photographer	33.50	9.23
Pharmacist	33.50	10.66
Skilled Crafts	33.50	10.62
Credit Manager	33.40	10.64
College Professor	32.60	7.95
Police Officer	32.20	10.04
Beautician	32.00	6.13
Flight Attendant	31.60	6.79
Executive Housekeeper	31.50	7.59
Forester	31.20	8.09
Musician	31.10	8.43
Banker	31.00	8.87
Licensed Prac. Nurse	30.90	5.80
Investment Fund Manager	30.00	4.37
Accountant	29.80	7.39
Math-Sci. Teacher	29.80	12.34
Optometrist	29.60	12.50
Dietitian	29.50	7.60
Purchasing Agent	29.40	10.62
Chiropractor	29.40	14.23
Marketing Executive	29.30	9.98
Nursing Home Admin.	29.00	11.42
Navy Officer	28.30	12.19
Recreation Leader	28.30	10.02
Physical Therapist	28.10	10.82
Air Force Officer	28.00	10.98
Geologist	26.80	9.57
Engineer	26.50	14.34
Agribusiness Manager	26.40	5.93
Army Officer	26.40	11.11
YWCA/YMCA Director	26.40	12.30
Veterinarian	26.20	5.94
Personnel Director	25.90	10.47
Advertising Executive	25.70	10.07
Systems Analyst	25.40	13.49

TABLE XII (Continued)

Occupation	Means (N-10)	Std. Dev.
School Administrator	25.30	12.91
Buyer	24.90	11.94
Elect. Public Official	24.80	9.55
Social Science Teacher	24.00	13.13
Medical Technologist	23.90	16.46
Physician	23.90	11.90
Architect	23.30	7.78
Registered Nurse	23.20	10.53
Guidance Counselor	23.10	15.00
Elementary Teacher	23.00	11.28
Interior Decorator	22.60	7.53
Lawyer	22.40	9.78
Life Insurance Agent	22.10	10.33
Physical Ed. Teacher	21.70	11.98
Occupational Therapist	21.10	5.17
English Teacher	21.00	9.27
Speech Pathologist	20.70	12.23
Librarian	20.10	6.62
Mathematician	20.10	11.39
Reporter	19.50	8.11
Special Ed. Teacher	19.50	11.78
Artist, Fine	18.80	12.01
Foreign Lang. Teacher	18.80	4.85
Psychologist	18.60	7.65
Artist, Commercial	17.80	11.40
Chamber of Commerce Exec.	17.80	8.05
Biologist	17.50	8.97
Business Ed. Teacher	17.10	9.43
Public Relations Director	17.00	10.77
Voc. Agric. Teacher	17.00	11.31
Public Administrator	16.90	11.57
Social Worker	15.20	9.99
Minister	14.60	12.88
Chemist	14.30	13.61
Physicist	11.30	13.52
Geographer	10.90	9.62
Art Teacher	10.40	7.47
Sociologist	8.20	10.67

relates to each of the Hypothesis, analysis of each, and presenting the data in tabular form.

Hypothesis One: There is no statistically significant difference between the mean scores of American Indian male students and the mean scores of non-Indian male students.

The data in Table XIII represents the analysis of the difference between mean scores of American Indian male students and the mean scores of non-Indian male students. It was found that the data, when treated, resulted in a significant F value. For the purposes of this study, an associated probability of .05 or less was required for rejection of the null Hypothesis. Thus, the hypothesis that there is no significant difference between mean scores of American Indian male students and the mean scores of non-Indian male students was rejected at the .05 level of confidence.

TABLE XIII

MEANS AND F'S FOR MALE NATIVE AMERICAN AND MALE NON-INDIAN STUDENTS INTEREST ON SCII OCCUPATIONAL SCALES DATA

Occupation	Indian N=20 Mean	Non-Indian N=20 Mean	F
Occupational Therapist	26.75	22.85	2.33*
Art Teacher	18.35	12.70	2.66*
Elementary Teacher	34.30	24.80	2.94*
Flight Attendant	31.95	39.90	2.35*
Banker	22.25	26.80	2.44*

*Significant at the .05 level of confidence.

The results suggest that the American Indian male students express a greater aspiration for working with people and helping others than do the non-Indian students. The non-Indian male students express a greater aspiration for working with numbers than do the American Indian students.

Hypothesis Two: There is no statistically significant difference between the mean scores of American Indian female students and the mean scores of non-Indian female students.

The data in Table XIV represents the analysis of the difference between mean scores of American Indian female students and the mean scores of non-Indian female students. It was found that the data when treated, resulted in a significant F value. For the purpose of this study, an associated probability of .05 or less was required for rejection of the null hypothesis. Thus, the hypothesis that there are no significant differences between mean scores of American Indian female students and the mean scores of non-Indian female students was rejected at the .05 level of confidence.

These results suggest that the American Indian female students express a greater aspiration for working with numbers, people, and helping others than do the non-Indian female students. The non-Indian female students express a greater aspiration in academic activities such as writing and reading books than do the American Indian female students.

Hypothesis Three: There is no statistically significant difference between the mean scores of American Indian female students and the mean scores of non-Indian female students at each school.

The data in Table XIV represents the analysis of the difference between mean scores of American Indian female students and the mean scores of non-Indian female students at each school. It was found that the

data, when treated, resulted in a significant F value. For the purposes of this study, an associated probability of .05 or less was required for rejection of the null hypothesis. Thus, the hypothesis that there is no significant difference between mean scores of American Indian female students and the mean scores of non-Indian female students at each school was rejected at the .05 level of confidence.

TABLE XIV

MEANS AND F's FOR FEMALE NATIVE AMERICAN AND NON-INDIAN FEMALE STUDENTS INTEREST ON SCII OCCUPATIONAL SCALES DATA

Occupation	Indian N=20 Mean	Non-Indian N=20 Mean	F
Occupational Therapist	16.15	15.40	4.33*
Rad. Tech. (X-Ray)	42.25	32.80	3.06*
Computer Programmer	26.95	26.75	2.36*
English Teacher	19.60	28.85	2.43*

*Significant at the .05 level of confidence.

These results suggest that the American Indian female students express a greater aspiration for working with numbers, people, and helping others than do the non-Indian female students. The non-Indian female students express a greater aspiration in academic activities such as writing and reading books than do the American Indian female students.

Hypothesis Four: There is no statistically significant difference between the mean scores of American Indian male students and the mean scores of non-Indian male students at each school.

The data in Table XIII represents the analysis of the difference between mean scores of American Indian male students and the mean scores of non-Indian male students at each school. It was found that the data, when treated, resulted in a significant F value. For the purpose of this study, an associated probability of .05 or less was required for rejection of the null hypothesis. Thus, the hypothesis that there are no significant differences between mean scores of American Indian male students and the mean scores of non-Indian male students at each school was rejected at the .05 level of confidence.

These results suggest that the American Indian male students express a greater aspiration for working with people and helping others than do the non-Indian male students. The non-Indian male students express a greater aspiration for working with numbers than do the American Indian students.

CHAPTER V

SUMMARY

Overview

The identification of interests has received much attention for almost 50 years. Although many valuable research studies dealing with interests are available, they leave unanswered questions. Thus, a counselor may have at hand the data from an interest inventory or questionnaire but he cannot always base interpretations of these data upon relationships demonstrated in the research literature. Therefore, his interpretations are frequently "best guesses" supported by piecemeal evidence, rather than conclusions drawn from an integrated body of verifiable knowledge. The making of judgments about an individual's interests whether done on the basis of test data or information gathered by nontest methods, is probably one of the most difficult aspects of guidance work. For this reason, the counselor should interpret interest data with the greatest possible care and thoughtfulness.

That people have different interests in life's many activities is a basic premise in the study of interests. People also have varying degrees of interest in any one activity. The amounts of their interest in this activity may be thought of as points on a continuous scale that ranges from "downright aversion" through "neutral" to "complete absorption." With scale in mind, it is clear that knowledge of the degree of a given interest possessed by a particular person provides another insight

into his uniqueness. That uniqueness, moreover, is displayed not only in one interest but in many other interests that also vary in intensity.

The review of literature in this study indicated that it has become apparent that there is a growing awareness concerning responsibilities to the American Indian in the United States, and it is higher than ever before in history. There is a belief today that if America is to remain strong, the opportunity must be provided for all citizens to develop to their full potential. Also, that individual fulfillment will mean greater productivity and as a result this country will be strengthened. This has implications of meeting needs of various populations throughout the country by our educational systems.

This study attempted to address the interests concerning the vocational aspirations of Native American students by concentrating primarily on the high school level, specifically grades 11 and 12. Also, this same kind of data was collected from non-Indian students in the same high school for the only purpose of comparing the different ethnic and cultural interests as it relates to vocational aspirations. Further, the investigation by this study involved answering four research questions by utilizing a standardized interest inventory, namely, the Strong-Campbell Interest Inventory (SCII).

The nature and extent of this study was to assess the inventoried interests in terms of comparing: (1) the vocational aspirations of American Indian male students with non-Indian male students; (2) the vocational aspirations of American Indian female students with the non-Indian female students; (3) the vocational aspirations of American Indian female students at each school with the non-Indian female students at each school; and (4) the vocational aspirations of American Indian male students at each school with the non-Indian male students at each school.

The answers to these research questions involved the development of a type of hierarchy of occupations in profile form in terms of mean scores and standard deviations in rank order of mean scores from highest to lowest scores. Tables I and II on pages 25-28 are in answer to research Question No. 1; Tables III and IV are in answer to research Question No. 2; Tables V, VI, VII, and VIII refer to research Question No. 3; finally, Tables IX, X, XI, and XII relate to research Question No. 4. The overall general conclusion was that these students had measurable perceptions of the occupations; and by observation, were very similar across cultures. These comparisons show that Native American students evaluate occupations in virtually the same hierarchic order as do non-Indian students. The occupational ranking followed quite closely to the distinction between "head" and "hand" work, and between "white collar" and "blue collar."

Conclusions

An analysis of variance was made for each of the occupations on the Strong-Campbell Interest Inventory Student Profile sheet. This numbered 81 for the male and 81 for the female students on the occupational scales section of which was the main concern of this study. The analysis of variance technique was used to test four hypotheses of no significant differences between mean scores of the non-Indian male/female students and the mean scores of the American Indian male/female students as well as at each school with respect to measured interests.

The two hypotheses (one and four respectively) concerning the mean scores of the American Indian male and the mean scores of the non-Indian male students was rejected for five (six percent) of the 81 occupational

scales on the SCII. The differences between race, sex, and schools on the other scales were found to be no larger than that which could be attributed to chance fluctuations in random sampling. The mean scores on the 81 occupational scales for each respective group are shown in Tables I, II, IX, X, XI, and XII. The occupations that resulted in a significant difference in mean scores, along with the associated F values are shown in Table XIII.

The two hypotheses (two and three respectively) relative to the mean scores of the non-Indian female students and the American Indian female students' mean scores was rejected on four (five percent) of the 81 occupational scales on the SCII. The differences between race, sex, and schools on the other scales were found to be no larger than that which could be attributed to chance fluctuations in random sampling. Each respective group mean scores on the 81 occupational scales are shown in Tables III, IV, V, VI, VII, and VIII. The occupations that resulted in a significant difference of mean scores, along with the associated F values are shown in Table XIV.

The primary concern of this investigation was to determine if there exists any difference that is significant to the vocational aspirations between American Indian (female/male) students and the non-Indian (female/male) students. A statistically significant difference did occur between the mean scores of American Indian (male/female) students and the mean scores of non-Indian (male/female) students. The female American Indian students and the non-Indian female students had a significant difference of mean scores (Table XIV) on the occupational therapist, radiologic technician (x-ray), computer programmer, and English teacher occupational scales. When the differences between these two groups were examined, it

was found that the female American Indian students expressed a greater interest in the areas of a helping nature, harmony of working with people, and working with numbers. Whereas, the non-Indian females expressed a greater interest to aspire in areas of academic endeavors, such as, writing and reading literature.

The male non-Indian students and the male American Indian students concerning mean scores had a significant difference (Table XIII) relative to the occupational therapist, art teacher, elementary teacher, flight attendant, and banker occupational scales. It was found that the non-Indian male students expressed greater interest of aspiration in working with numerical figures. The American Indian male students expressed a greater desire of aspiration toward working with people and assisting others.

Although these differences have occurred, there is still some form of homogeneity as the results of analysis indicate among these two cultural groups and by sex. These groups are capable of existing together in harmony.

Under the conditions of this study of the Occupational Scales, they were shown to have at least functional utility for both cultural groups. Scott and Anadon (1980) concluded in a similar manner with respect that vocational choice is yet in the future. The counselor should exercise some caution in interpreting test results to his/her clients. While this study has some positive inclinations for use with Native American students, the possibility remains that such instruments may be rather biased for this ethnic group from the standpoint of cultural backgrounds. Generalization from this study has its limitations which has been shown.

Recommendations

The need for this study evolved, in part, from the need of more information concerning occupational aspirations of Native Americans. The investigator recommends that:

1. Further research be conducted to produce additional evidence concerning Native American occupational aspirations.
2. A study be made to identify specific interest characteristics which are essential for a more successful occupational choice.
3. A study to identify the characteristics of interest patterns of drop-outs.
4. That aspirational studies be done with older, more mature, Native Americans.

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VITA

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