# A COMPARATIVE SIUDY OF VOCATIONAL AND MOM-VOGATIONAL BOYS IIT THPERE NEGRO <br> HIGH SCHOOLS IN OKTAHOMA 

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## INPRODUCTION

The Annual High School Bulletin, published by the State of Oklahoma Department of Education, states that a minimum of sixteen units is required for graduation from an accredited four-year high school. Four units in English, two units in mathematics, one-half unit in Oklahoma history, one-half unit in conmunity civics, one unit in science, and one unit in American history must be included in the sixteen or more units of regularly organized classroom instruction counting toward graduation. The bulletin specifies further that students may elect subjects in the fields of foreign languages, commerce, industrial and vocational arts, and fine arts to round out the sixteen units required for graduation.

Webster defines elective to mean exerting the power of choice. The matter of students electing to take vocational subjects instead of non-vocational subjects, or vice versa, has beon the subject of much discussion by both school people and laymen. The procedure used by administrators to guide students in electing to take vocational or non-vocational subjects forms the basis for much of this discussion. Many school people and laymen alike think that school administrators arbitrarily guide students; the more apt students
being advised to take non-vocational subjects, the dull or retarded students to take vocational subjects. Vocational subjects, some school people and laymen believe, are looked upon as "dumping grounds" for "problem children" by school administrators.

Assuming that the thinking of the school people and laymen is or is not valid, what about the students who are supposedly being "juggled"? How well do they fit the assigned categories of "dull boy" vocational and "bright boy" non-vocational? Are they interested in the subjects they are taking now, or are they taking these subjects because they were "advised" to do so?

The purposes of this study are as follows:

1. To determine the method used by administrators in guiding students in their electing to take vocational or non-vocational subjects in the three high schools used in the study.
2. To determine the occupations in which vocational and non-vocational boys are interested at present In the separate schools of 0lmulgee, Choctaw and Shawnee.
3. To compare the occupational preferences and mental abilities of vocational and non-vocational boys in the three high schools.

## REVIEW OF LITERATURE

A great deal of thought has been given by different writers in regard to the problem of guiding students in secondary schools. Chisholm ${ }^{1}$ advances the idea that an important item in planning a guidance program for a school is an accurate knowledge of the offerings of the school, curricular and extra-cumpicular, in terms of the experiences the work affords the students.

Guiding students in electing to take the curricular offerings of the school is sometimes limited to a statement from the teachers of the various subjects as to what the student might hope to get from each course. Koos and Kefauver ${ }^{2}$ have called attention to a significant point in a study of the school and its offerings. They point out that teachers of various subjects cannot always be relied upon for an accurate statement of the objective of their work. They further state that there are some teachers who still believe that certain subjects train the mind, although the formal discipline theory has been rejected by psychologists for more than a quarter of a century.

[^0]Equally as important as guidance of Negro youth into various occupations is the matter of placoment. Discussing the occupational situation for Negro youth in terms of a guidance program, Jones ${ }^{3}$, of the University of Pennsylvania, points out that there is a tendency to constrict and contract occupational opportunities for Negroes. Many of the simple, unskilled manual jobs have disappeared, he states, because of the introduction of machinery, and there has been no corresponding onlargement of opportunities in the higher oceupations. He fuxther states that although Negroes make up one-tonth of the population they are generally disregarded in the administrative organization of govermment and of private institutions and agencies.

The practice of arbitrarily placing students in vocational and non-vocational subjects on the basis of mental abilities is not sound. Koos, Hughes, Hutson, and Reavis ${ }^{4}$ point out that the vocational curriculums should not be used. as a "dumping ground" for the least competent pupils. Intellectual incompetents cannot be expected to succeed in highly skilled and complex occupations.

To be thorough in the job of guiding youth into various occupational areas, the school should be cognizant of the

[^1]employment potentialities in its service area. Cole ${ }^{5}$ states that the employment potentialities of one's community resources are and can be unlimited. These potentialities, he thinks, can be uncovered through directories, nowspapers, and personal contacts. In all instances, the student should be made aware of these potentialities and, at the same time, the possibility of their occupational development in the different areas of employment.

A sound argument for the need of a guidance program in the secondary school is found in a follow-up study on guidance made by Bennett, Seashore, and Wesman ${ }^{6}$. They found that students who tend to show superiority in their knowledge of words and the mechanics of English while in high school comprise the bulk of the group now seeking degrees in college. Further, they found that students in science courses and engineering schools are, for the most part, those who show excoptional numerical ability. They also found that men now in the mechanical trade generally test better in mechanical reasoning than in verbal skills.

[^2]Cox, Durf and McNamara ${ }^{7}$ discourage the practice of arbitrarily guiding students into different subjects by pointing out that guidance of the intellectually superior students is too often negative in the sense that they are encouraged to choose abstract and verbalistic subjects and occupations merely because they have natural endowments that make possible success in such subjects and occupations. The students with superior intellect, they state, are "railroaded ${ }^{\text {I }}$ into academic curricula and subjects even though such "election" debars them from opportunities to specialize in mechanical or vocational activities wherein they might find opportunities to develop their unique geniuses.
$7_{\text {Phillip W. L. Cox, John Carr Duff, and Marile Mellamara, }}$ Basic Principles of Guidance (New York, 1948), pp. 306-308.

## METHOD OF PROCEDURE

The data used in this study were obtained from personal interviews with the supervising principals of the three high schools used In the study, occupational interest surveys, and test results from the Kuder Preference Record and the S. R. A. Primary Abilities test.

The principals of the three high schools used in this study were interviewed personally to secure permission to make the study in their schools and to ascertain the method used by each of them in the placement of students in vocational and non-vocational subjects. Occupational interest surveys were used to secure information concerning the present occupational interests of vocational and non-vocational boys in the Olmulgee, Choctaw, and Shawnee high schools. Data for comparison of vocational and non-vocational boys as to their occupational proferences and mental abilities were secured from the result of scores obtained from the Kuder Preference Record test, published by the Science Research Association, and the S. R. A. Primary Mental Abilities test, published by the same association. These comparisons were made between eighty-five vocational and eighty non-vocational boys, grades nine and ten, in the three high schools. The Kuder Preference Record was used as a means of systematically determining whether or not the "freedom of choice"
exercised by vocational and non-vocational boys in electing subjects is consistent with the things they ordinarily prefer to do.

Kuder Preference Record test scores were obtained in the following nine general areas of interest: (1) mechanical, (2) computational, (3) artistic, (4) persuasive, (5) scientific, (6) literary, (7) musical, (8) social service and (9) clerical. Scores made by the vocational and the nonvocational groups in each of these areas of interest were totaled separately, and the mean (M) score found for each group in each area of interest. These mean scores were used to make profiles, giving a graphic picture of the occupational preferences of both groups.

The S. R. A. Primary Mental Abilities test was administered as a means of securing a total score of the different mental abilities of vocational and non-vocational boys so that a comparison might be made betweon the two groups. Distribution tables, showing the range of total scores and the percentile rank of each group, were made. The percentile rank corresponding to the total raw score made by the individuals in each group was found by use of the P. M. A. Standard Table in which over 18,000 students, all over America, made up the standardization population.

# PRESEMTIATION AND ANALYSIS OF DATA ON THE 

 DUNBAR SCHOOL, OKMULGEE, OKTAHOMA
## The School

Dunbar High School, Olamulgee, named for a noted Negro poet, is located in Okmulgee County fortymine miles southeast of Tulsa. Dumbar has a faculty of sixteen high school teachers and an enroliment of 275 students. The occupational opportunities for students finishing the Dumbar High School are limited. The general stores and Industrial plants do not look favorably upon hiring men of color. Douglas Aircraft, Tulsa, furnishes job opportunities in aircraft repair and maintenance. It might be stated here, however, that in the last twelve years the population of Oklahoma has become so fluid that occupational opportunities need not be considered wholly on the basis of where one happens to be at a given time. People who only "yesterday" were faced with limited job opportunities are "today", by virtue of having moved, facing a new horizon of job opportunities.

## Guidance Procedure Used in the Dumbar School

Table I shows that students are free to choose those electives they will take in the Dumbar school. The basis

## TABLE I

GUIDANCE PROCEDURE USED BY THE ADM INISTRATION OF THE DUNBAR HIGH SCHOOL, OKMULGEE, OKTAHOMA

| Electives Offered in School | Limitations on Student's Choice of Vocational and Non-Vocational Subjects | Basis for Guiding Students in Elocting Subjects | Difriculties Encountered in Guiding Students |
| :---: | :---: | :---: | :---: |
| Vocational Agriculture | Free to elect | Explanation from principal and | Student likes and dislikes for teachers |
| Typewriting |  | what might be ex- | Degree of difficulty of |
| Health Education |  | offerings |  |
| General Shop |  |  | Limited guidance in the school |
| Driver Training |  |  |  |

for guiding students in electing to take vocational or nonvocational subjects probably gives some indication of the degree to which students are actually free to elect what they will take. Table I shows further that the basis for guiding students in their electing to take certain subjects is weak. Though the explanation from the principal might be thought to be unbiased as to what might be expected from the different course offerings, certainly those coming from the teachers cannot be thought to be so. Being under constant pressure, more or less, to keep up class enrollment is not necessarily conducive to unbiased counseling of students as to what subjects they should take.

Difficulties encountered by the administration in guidIng students indicate that, although students are free to elect, the basis on which it is done is not always sound. Student likes and dislikes for teachers, selecting a subject because it is less difficult than another, and lack of proper counseling are all conducive to a state of being free to elect without a sense of responsibility for outcomes. In light of this condition, it will be of interest to analyze Table II which presents a comparison of the occupational interest of vocational and non-vocational boys in the Dunbar school.

## Occupational Interest ${ }^{7}$

Table II shows twenty-one of the twenty-seven vocationa. boys to be interested in farming and auto mechanics; eighteen in farming, and three in auto mechanics. Nine of the twenty-one boys interested in farming and auto mechanics plan to enter these occupations on finishing high school, while twelve plan to pursue the occupations of farming and auto mechanics on completion of their college careers. of the remaining six vocational boys, three plan to enter the arnis, one is undecided what he will do on finishing high school, one is undecided as to what he will do on finishing college, and one plans to enter medicine on completion of his professional training. The non-vocational group shows a wider divergence of occupational interest than is shown by the vocational group. of twelve non-vocational boys who plan to enter occupations on finishing high school, one plans to enter auto mechanics, one upholstering, one construction work, three arma, and six conmon labor.

Table II shows twenty-five non-vocational boys to be interested in occupations which they plan to enter on completing their college careers. Five of the non-vocational boys plan to go to college and enter some occupation on completing their work, but are undecided what the occupation
$7_{A}$ copy of the survey is included in the Appendix.

## TABLE II

OCCUPATIONAL INTEEREST OF 27 VOCATIONAL AND 37 NON-VOCATIONAL BOYS IN THE DUNBAR HIGH SCHOOL, OKMULGEE, OKLAHOMA

| Occupations in which Boys aro Prosentiy Interestod | Number Planning to Enter Occupations on Finishing High School |  | Number Planning to Enter Occupation on Completion of Colloge Career |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vocational | Von-vocational | Vocational | on-vocational |
| Farming | 8 | 0 | 10 | 1 |
| Auto Mechanics | 1 | 1 | 2 | 3 |
| Medicine | 0 | 0 | 1 | 6 |
| Upholstering | 0 | 1 | 0 | 1 |
| Industrial Arts Teacher | 0 | 0 | 0 | 5 |
| Construction Worker | 0 | 1 | 0 | 0 |
| Interior Decoration | 0 | 0 | 0 | 1 |
| Agricultural Engineering | 0 | 0 | 0 | 2 |
| Army | 3 | 3 | 0 | 0 |
| Lawyer | 0 | 0 | 0 | 1 |
| Common Laborer | 0 | 6 | 0 | 0 |
| Undecided | 1 | 0 | 1 | 5 |
| Total | 13 | 12 | 14 | 25 |

will be. Twenty of the boys show more definite interest as follows: one, farming; three, auto mechanics; six, medicine; one, upholstering; five, industrial arts; one, interior decorating; two, agriculture engineering; and one, law. It is significant to note that two vocational boys and three nonvocational boys who indicate that they plan to go to college also indicate intentions to enter a vocation that ordinarily requires only trade school training. This would seem to Indicate lack of guidance techniques on the part of persons responsible for directing students in the Dunbar school.

## Subject Interest

Table III shows the subjects in which twenty-seven vocational and thirty-seven non-vocational boys are interested in at the Drmbar High School. Twenty-two of the vocational boys, 81.5 percent of the group, showed greater interest in vocational agriculture than in any of the subjects in which the group is presently interested. It is to be noted that, although none of the non-vocational boys showed an interest in the vocational offering of the school, eight, or 27.6 percent, of the thirty-seven boys showed an interest in auto mechanics. This fact should be of interest to those responsible for course offerings in the Dumbar High School. The highest percentage of non-vocational boys, 59.4 percent, showed interest in social studies. It is likely
that there is some correlation between the decentralization of interest among a number of subjects on the part of the non-vocational group and their varied occupational interest; the centralized interest of the vocational group in one subject and their narrow range of occupational interest.

## TABLE III

SUBJECTS IN WHICH 27 VOCATIONAL AND 37 NONVOCATIONAL BOYS PRESENTITY ARE INTYERESTEED AT DUNBAR HIGH SCHOOL, OKMULGEE, OKLAHOMA

| Subjects in which Boys Presently are | Boys Interested in Different Subjects | Percent of Boys Interestod in Different Subjects |
| :---: | :---: | :---: |
| Interested | Vocational Non-Voc. | Vocational Non-Voc. |
| Vocational Agriculture | 220 | 81.50 |
| Mathematics | 1210 | 47.427 .0 |
| General Shop | $0 \quad 19$ | $0 \quad 51.3$ |
| Social Studies | 12.22 | 4.459 .4 |
| Science | 5 8 | 18.5 21.6 |
| Thglish | 1312 | 48.1 32.4 |
| Music | 24 | 7.410 .8 |
| Auto Mechanfics ${ }^{\text {\% }}$ | 08 | $0 \quad 21.6$ |

[^3]
## The Kuder Preference Record Test ${ }^{9}$

Puppose
Occupations often are chosen by people because of some chance influence rather than as a result of a careful review of the occupational field.

The Kuder Preference Record is a means of making a systematic approach to this problem. By means of the scores obtained, the individual's or group's attention may be directed toward occupational areas which appear to be particularly promising in the light of this preference. In many cases, a person's attention may be called to an occupation for which he is suited, but which he has not previously considered simply because of unfamiliarity.

The specific uses of the Kuder Preference Record for vocational guidance are as follows:

1. To point out vocations with which the student may not be Pamiliar but which involve activities of the type for which he has expressed preference. Such vocations deserve to be considered in the light of measures of ability. In no case, however, are the preference scores intended as a substitute for measures of ability.
${ }^{9}$ A copy of the answer pad for the Kuder Preference Record test is found in the Appendix.
2. To check on whether a person's choice of an occupation is consistent with the type of thing he ordinarily prefers to do. If the choice has not been made on the basis of familiarity with the occupation in question, the choice may be a poor one. Sometimes adolescents make choices because they admire persons in the occupation chosen or because the occupation is being chosen by friends.

## Occupational Preferences

Figure 1 presents a graphic comparison of the occupational preferences of twenty-seven vocational and thirtyseven non-vocational boys, grades nine and ten, in the Dunbar High School, Okmulgee, Oklahoma. It should be noted that scores on and above the 75 th percentile indicate a definite preference for the occupation on which the score is made. Percentile scores ranging between the 65 th and 70 th percentiles have some significance, but they cannot be regarded with as much confidence as higher scores. Scores on or below the 50th percentile indicate that the group has no well developed interest in that occupational area. ${ }^{10}$

As shown in Figure 1, the vocational group ranked at the 69 th percentile, while the non-vocational group had a
${ }^{10}$ G. Frederic Kuder, Revised Manual for the Kuder Preference Record (Chicago, 1946).

percentile score of 67 in preference for occupations requiring mechanical ability. The difference in percentile rank is not great enough to indicate any significant difference between the two groups as to their preference for occupations requiring mechanical ability. The rank of both groups, however, is high enough to indicate interest in mechanical occupational areas. Some occupations which fall in the mechanical area are airplane mechanic, assembler of mechanical articles, auto mechanic, and construction worker. Neither the vocational nor the non-vocational groups showed percentile scores high enough to indicate a definite interest in occupations requiring computational ability. The vocational group ranked at the 36th percentile, and the nonvocational group ranked at the 64th percentile. Some of the occupations which require computational ability are accounting, auditing, bookkeoping, and surveying.

The non-vocational group showed a higher percentile rank, 65 th, in occupations requiring scientific ability than did the vocational group, which ranked at the 36 th percentile. Included in this list of occupations are agronomist, biologist, chomist, erosion specialist, surgeon, inventor, and veterinarian. Occupations requiring persuasive ability are, to name a few, buyer, lawyer, radio announcer, sales clerk, politician, grocer, consul, and diplomat. The vocational group showed greater preference for occupations requiring persuasive ability than did the non-vocational boys.

The vocational boys had a percentile rank of 70 , or ranked at the 70th percentile, while the non-vocational boys ranked at the 56 th percentile. The percentile ranks of 56 and 49 which were made by the vocational and non-vocational groups, respectively, are too low to indicate any particular interest in occupations requiring artistic ability. The vocational group ranked at the 40 th percentile in preference for occupations requiring literary ability. The nonvocational group ranked at the 43 rd percentile. Neither rank is significant enough to indicate any preference for this occupation. The vocational group and the non-vocational group ranked at the 61st and 59th percentiles, respectively, in preference for those occupations requiring musical ability. Other than the fact that the vocational group outranked the non-vocational group by two percentile points, there is nothing here to indicate a particular preference on the part of either group for occupations requiring musical ability. Both the vocational and non-vocational boys ranked high in their preference for occupations in the social service area. The vocational group ranked at the 76 th percentile and the non-vocational group at the 83 rd percentile. Occupations in the service area include adult education director, county home demonstrator, scout leader, welfare worker, farm adviser, $4-H$ or M.F.A. adviser, and vocational counselor. The vocational group ranked highest in its interest of occupations requiring clerical ability. The vocational group
ranked at the 68th percentile, and the non-vocational group ranked at the 53 rd percentile. Occupations requiring clerical ability are clerk, examination scorer, proofreader, typist, teletype operator, and key punch operator.

The difference in occupational preferences expressed by vocational and non-vocational boys can be said to be a matter of degree rather than kind. Although the percentile scores were a bit different, a matter of degree, both groups ranked high, above the 75 th percentile, in preference for the same occupations. The greatest degree of difference is shown in the expressed preference of the two groups for occupations requiring scientific knowledge. However, the highest score, 65, is not high enough to be too significant In determining the preference of either group for occupation in the scientific area.

## S. R. A. Primary Mental Abilities Test ${ }^{11}$

Explanation of Test ${ }^{12}$
The S. R. A. Primary Abilities test was designed to measure several of the abilities (mental) that have been found through the method of factor analysis. They are the

[^4]latest development in a series of researches carried on for many years at the Psychometric Laboratory of The University of Chicago. Scores on flve separate mental abilities may be obtained from the test. The five separate abilities are (1) verbal meaning, (2) space, (3) reasoning, (4) number, and (5) word-fluency. The total score is made up of the five ability scores weighed so that each ability contributes equally to the total.

By use and analysis of the five separate abilities, as well as the composite score, the teacher can better understand his students and adapt the curriculum to their special needs and capacities.

Research done during the last several years has demonstrated that intelligence can best be described in terms of several different abilities. These abilities have been given the name "Primary Mental Abilities."

## Primary Mental Abilities Scores

Table IV shows the distribution of total scores of twenty-seven vocational and thirty-seven non-vocational boys who took the Primary Mental Abilities test in the Dunbar school. It may be noted that the vocational group had a median score, the score exceeded by half the group, of 70.50 , while the non-vocational group had a median score of 82 . This represents a difference in median of 11.50 in favor of the non-vocational group. The vocational group had a mean

DISTRIBUITON OF I SCORES* MADE ON S. R. A. PRTMARY MENTAL ABILITIES TEST BY 27 VOCATIONAI AND 37 NON-VOCATIONAL BOYS, GRADES 9 AND 10, DUNBAR HIGH SCHOOL, OKMULGEE

| Scores | Frequency |  |
| :---: | :---: | :---: |
|  | Vocational | Non-vocational |
| 141-150 | 0 | 1 |
| 131-140 | 2 | 1 |
| 121-130 | 0 | 3 |
| 111-120 | 2 | 3 |
| 101-110 | 2 | 6 |
| 91-100 | 1 | 4 |
| 81-90 | 3 | 2 |
| 71-80 | 4 | 6 |
| 61-70 | 4 | 2 |
| 51-60 | 3 | 2 |
| 41-50 | 5 | 5 |
| 31-40 | 1 | 2 |
|  | N 27 | N 37 |
|  | Median 70.50 | Median 82.00 |
|  | Mean 76.03 | Mean 86.05 |

*T Scores-Total Score is the sum of $V \not \subset S \not \subset 2 R \not \subset 2 N \nsim W$ made on the Primary Mental Abilities Test.
score, average score, of 76.03 while the non-vocational group scored 86.05 . This represents a difference of 10.02 in mean scores favoring the non-vocational group. From the information presented here, it can be seen that non-vocational boys rated higher in total mental abilities than did the vocational boys.

## Percentile Scores

Table $V$ presents the distribution of percentile scores of twenty-seven vocational and thirty-seven non-vocational boys who took the Primary Mental Abilities test. These percentile scores indicate the rank of the boys in this study as compared with other high school students of like ages throughout the United States. As show in Table $V$, only one of the vocational boys, 3.7 percent of the group, ranked above the 2lst percentile while nineteen, or 70.3 percent, ranked between the first and fifth percentiles. Five nonvocational boys ranked above the 2lst percentile while 22, or 59.4 percent, ranked between the lst and 2nd percentiles. The vocational group had a median score of 2.10 while the non-vocational group had a score of 4.0 . This is a difference in median of 1.90 in favor of the non-vocational group. The vocational boys had a mean score of 5.55 while the nonvocational group scored 7.29. The non-vocational boys had a mean score of 1.74 above the vocational boys.

From the standpoint of comparison, the non-vocational boys had a higher percentile rank than did the vocational

## TABLE V

DISTRIBUTION OF PERCENTITE SGORES MADE ON THE S. R. A. PRTMARY MEIPTAL, ABIITTTIES TESS BY 27 VOCATIONAL AND 37 NON-VOCATTONAL BOYS, GRADES 9 AND 10, dUNBAR HIGH SCHOOI, OKMULGEE, OKTAHOMA

| Scores | Frequency |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vocational |  | Non-Vocational |  |
| 31-35 |  |  |  |  |
| 26-30 |  |  |  |  |
| 21-25 |  |  |  |  |
| 16-20 |  |  |  |  |
| 11-15 |  |  |  |  |
| 6-10 |  |  |  |  |
| 1-5 |  |  |  |  |
|  |  |  | N |  |
|  | Median | 2.10 | Median | 4.00 |
|  | Mean | 5.55 | Mean | 7.29 |

group on the Primary Mental Abilities test. However, both groups ranked low when compared with the standardized score obtained from testing over 18,000 high school students over America. Lack of acquaintance with the test, coupled with the possibility that some of the boys may not have been properly impressed with the need for doing their best, may have, in some measure, accounted for these low scores.

# PRESBINTATION AND ANALYSIS OF DATA ON THE DUNBAR HIGH SCHOOL, SHAWNEE, OKT,AHOMA 

The School

The Dunbar High School, Shawnee, is located in Pottawatomie county fortymive miles east of Oklahoma City. Dunbar has a faculty of seven high school teachers and an enrollment of ninety-four high school students.

Occupational opportunitles for Negroes in Shawnee are limited. The Sylvania Company, makers of electric light bulbs and electric appliances, and the Shawnee Milling Company do not furnish employment for Negroes. Many Shawnee citizens commute daily to and from Tinker Air Field near Oklahoma City. Employment for Negroes in Shawnee, beyond the school system, is limited to garages, service stations, and work in private homes.

## Guidance Procedure used in the Dunbar School

Table VI presents the guidance procedure used in the Dumbar school. Students are free to elect those subjects they will take over and above those prescribed by the State Department of Education. As shown in Table VI, some testing is done in the Dunbar school. It seems, however, that the proper initiative has not been taken to see that the

TABLE VI
GUIDANCE PROCEDURE USED BY THE ADMINISTRATION OF THE DUNBAR HIGH SCHOOI, SHAWNEES, OKJAHOMA

| Electives Offered in School | Limitations on Student's Cholce of Vocational and Non-vocational Subjects | Basis for Gulding Students in Electing Subjects | Difflculties Encountered <br> in Guiding Students |
| :---: | :---: | :---: | :---: |
| Vocational Agriculture | Free to elect | Some testing with limited follow-up | Student likes and dislikes for teachers. |
|  |  | Faculty conference with students. | Ideas of some students toward some subjects |

necessary follow-up is carried on in the testing program. Equally as important as properly administering the test is the analysis of scores to better understand students so that the curpiculum can be adapted to their special needs and capacities. Faculty conferences with students as a means of guiding them in electing to take different subjects is not as sound as it might be. Koos and Kefauver ${ }^{13}$, in a study of the school and its offerings, state that teachers of various subjects cannot always be relied upon for an accurate statement of the objectives of their work. The personal interest that teachers have in keeping up class enroliment might render them unfit to give unbiased guidance in the selection of electives. The matter of teacher popularity might be the determining factor as to what students will elect to take rather than the needs of the student. Student likes and dislikes for teachers, coupled with the distorted ideas some students have toward some subjects, form an unsound basis for selecting subjects.

## Occupational Interest

Table VII shows twenty-two of the twenty-eight boys who take vocational subjects, 78 percent of the group, to be presently interested in farming, auto-mechanics, brick
${ }^{13}$ Koos and Kofauver, Guidance in Socondary Schools.

## TABLE VII <br> OCCUPATIONAL INIEEREST OF 28 VOCATIONAL AND 15 NON-VOCATIONAL BOYS IN THE DUNBAR HIGH SGHOOL, SHAWNEE, OKLAHOMA

| Occupations in which Boys Prosently are Interestod | Vumber Planning to Entor Occupations on Finishing H1 ch School |  | Number Planning to Enter Occupations on Completion of College Career |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vocatio | Non-vocational | Vocational | Von-vocational |
| Farming | 7 | 0 | 10 | 0 |
| Auto Mechanics | 1 | 0 | 2 | 0 |
| Physical Education Teacher | 0 | 0 | 1 | 2 |
| Brick Mason | 0 | 0 | 1 | 1 |
| Medicine | 0 | 0 | 1 | 3 |
| Social Science Teacher | 0 | 0 | 1 | 0 |
| Carpentry | 0 | 0 | 1 | 0 |
| Voc. Agriculture Teacher | 0 | 0 | 1 | 0 |
| Science Instructor | 0 | 0 | 1 | 1 |
| Industrial Arts Teacher | 0 | 0 | 0 | 5 |
| Business | 0 | 1 | 0 | 0 |
| Axmy | 1 | 0 | 0 | 0 |
| Undecided | 0 | 0 | 0 | 2 |

masonry and carpentry. A break-down shows the following interests: seventeen, farming; three, auto mechanics; one, brick masonry; and one, carpentry. It should be pointed out that auto mechanics and brick masonry are not offered in the curriculum. Of the remaining six vocational boys, one is interested in medicine, one is interested in becoming a physical education teacher, one is interested in social science, one is interest in science, one wants to become a vocational agriculture teacher, and one plans to enter the army. Five of the fifteen non-vocational boys, 33.3 percent of the group, showed interest in becoming industrial arts instructors. Two were interested in becoming physical education teachers, three were interested in medicine, one wants to become a science instructor, one plans to enter the grocery business, and two were undecided as to future occupations. One showed an interest in brick masonry. Eight of the vocational boys plan to enter occupations on finishing high school while only one non-vocational boy plans on doing so. The vocational group shows a more focalized occupational interest than is shown by the non-vocational group.

## Subject Interest

Table VIII shows a greater percentage of vocational boys, 96.4 percent of the group, to be interested in vocational agriculture than in any other subject in which the group is presently interested. It is quite interesting to

## TABLE VIII

SUBJECTS IN WHICH 28 VOCATIONAL AND 15 NONVOCATIONAL BOYS PRESENTIY ARE TNTERESTED IN THE DUNBAR HIGH SCHOOL, SHAWNEE, OKLAHOMA

| Subjects in <br> which Boys <br> Presently are <br> Interested | Boys Interested in <br> Different Subjects |  | Percent of Boys <br> Interested in <br> Different Subjects |  |
| :--- | :---: | :---: | :---: | :---: |
| Vocational <br> Agriculture | 27 | 0 | 96.4 | 0 |
| Mathematics | 13 | 8 | 46.4 | 53.5 |
| Gecational Non-Voc. |  |  |  |  |

note that a higher percentage of vocational boys show an interest in social studies and English than is shown by the non-vocational group. As shown in Table VIII, a greater percentage of non-vocational boys show an interest in general shop than in any other subject in which the group is presently interested. Surprising to note is the fact that only 3.5 percent of the vocational boys and none of the nonvocational group seem to have been interested in carpentry. However, this is in keeping with the fact, as presented in

Table VII, that only one vocational boy, 3.5 percent of the group, is planning to enter carpentry as an occupation.

## Occupational Preferences

Figure 2 presents a comparison of occupational preferences of twentymeight vocational and fifteen non-vocational boys, grades nine and ten, in the Dunbar High School, Shawnee, Oklahoma.

It should be noted that scores on or above the 75th percentile indicate definite preference for the occupation on which the score is made. Percentile scores raning between the 65 th and 70 th percentiles have some significance but cannot be regarded with as much confldence as higher scores. Scores on or below the 50th percentile indicate that the group has no well developed interest in that occupational area.

As shown in Figure 2, both vocational and non-vocational boys ranked below the 50th percentile in the mechanical and scientific areas. There was a marked difference between the vocational and non-vocational groups in preference for occupations requiring computational ability. The vocational group ranked at the 58th percentile; the non-vocational group ranked at the 40th percentile. A difference of 11 percentile points is to be noted between vocational and nonvocational boys in their preference for occupations requiring persuasive ability. The vocational group ranked at the

OCCUPATIONAL PREFERENCES FOR 23 VOCATIONAL AND 15 NON-
VOCATIONAL BOYS TAKING THE KUDER PREFERENCE RECORD
IN THE DUNBAR HIGH SCHOOL, SHAWNEE, OKLAHOMA


Figure 2

62nd percentile, and the non-vocational group ranked at the 51 st percentile. The non-vocational group ranked at the 63rd percontile in choice of occupations requiring artistic ability; the vocational group ranked at the 65 th percentile. The vocational boys and the non-vocational boys ranked at the 55 th and $32 n$ d percentiles, respectively, in preferences for occupations requiring literary ability. Both the vocational and non-vocational groups ranked rather high in musical inclination, as the vocational group ranked at the 67 th percentile and the non-vocational group ranked at the 63 rd percentile. The highest percentile score made by the vocational group was in its choice of occupations in the social service area. The group ranked at the 83rd percentile. The non-vocational group ranked above the 65 th percentile with a score of 72. Both groups show derinite preference for occupations such as adult education director, case worker, county demonstrator, social worker, $4-1$ Club supervisor, and farm bureau agent, to name a few. In preference for occupations requiring clerical ability, the vocational group ranked at the 65 th percentile; the nonvocational group at the 53rd percentile.

Analysis of Scores Made on the S. R. A.
Primary Mental Abilities Test
Table IX presents the distribution of total scores of twenty-eight vocational and fifteen non-vocational boys who took the S. R. A. Primary Mental Abilities test in the

## TABLE IX

DISTRIBUTION OF T SCORES ${ }^{*}$ MADE ON THE S. R. A. PRTMARY MEITIAL ABILITIES TEST BY 28 VOCATIONAL AND 15 NON-VOCATIONAL BOYS, GRADES 9 AND 10, DUNBAR HIGH SCHOOL, SHAWNEE, OKTAHOMA

| Scores | Vocational | Frequency |
| :---: | :---: | :---: |
| $141-150$ | 0 | 0 |
| $131-140$ | 2 | 0 |
| $121-130$ | 0 | 0 |
| $111-120$ | 2 | 2 |
| $101-110$ | 2 | 2 |
| $91-100$ | 1 | 1 |
| $81-90$ | 3 | 1 |
| $71-80$ | 2 | 1 |
| $61-70$ | 1 | 1 |
| $51-60$ | 2 | 1 |
| $41-50$ | 1 | 1 |
| $31-40$ | 1 | 1 |

*T Scores--Total Score is the sum of $V \not \subset S \not \subset 2 R \not \subset 2 N \not \subset W$ made on the Primary Mental Abilities Test.

Dunbar High School, Shawnee, Oklahoma. It may be noted that the vocational group had a median score, the score exceeded by half the group, of 70 while the non-vocational group had a median score of 62.50 . This represents a difference in median of 7.50 in favor of the vocational group. The vocational group showed a mean score of 74.96 while the nonvocational group scored 68.40. The difference in mean score is 6.56 in favor of the vocational boys. The information presented in Table IX shows that the score exceeded by half the group was higher for the vocational group than for the non-vocational group. The vocational boys also showed a higher average score on the mental abilities test than did the non-vocational group.

## Percentile Scores

Table $X$ presents the distribution of percentile scores of twenty-eight vocational and fifteen non-vocational boys Who took the S. R. A. Primary Mental Abilities test. These percentile scores indicate the rank of the boys in this study as compared with other high school students of like ages throughout the United States. As shown in Table $X$, only two boys in each of the groups had scores above the 21st percentile. At the other end of the scale, 75 percent of the vocational boys made scores ranging between the flrst and fifth percentiles. The non-vocational group showed ten, 66.6 percent of the boys, with scores between the first and fifth percentiles.

## TABTE X

DISTRIBUTION OF PERCENTITE SCORES MADE ON THE S. R. A. PRIMARY MENTAL ABILITIES TEST BY 28 VOCATIONAI AND 15 NON-VOCATIONAL BOYS, GRADES 9 AND 10, DUNBAR HIGH SGHOOI, SHAWNEE, OKLAHOMA

| Scores | Frequency |  |  |
| :---: | :---: | :---: | :---: |
|  | Vocational |  | Non-Vocational |
| 31-35 |  |  | 0 |
| 26-30 |  |  | 0 |
| 21-25 |  |  | 2 |
| 16-20 |  |  | 0 |
| 11-15 |  |  | 1 |
| 6-10 |  | , | 2 |
| 1-5 |  |  | 10 |
|  |  | 8 | N 15 |
|  | Median | 1.0 | Median 1.50 |
|  | Mean | 5.42 | Mean 6.0 |

Boys in the Dunbar school are not too well acquainted With the kind of test administered in this study; consequentIy, in some measure, the low scores may be attributed to their unfamiliarity with such tests. The fact that the test was administered by a stranger to the students in the school may have contributed to the low scores made by the vocational and non-vocational boys.

# PRESEMTATION AND ANAIYSIS OF DATA ON THE DUNGEE HIGH SCHOOL, CHOCTAW, OKLAHOMA 

## The School


#### Abstract

Dungee High School, Choctaw, is located in Oklahoma county fourteen miles northeast of 0klahoma City. Dringee has a faculty of thirteen high school teachers and a high school enrollment of 205 students. The people in the community live on small acreages, suitable for truck farming, and work on goverment jobs at Tinker Field and in Oklahoma City. Boing located adjacent to Tinker Field, a government installation, places Dungee High School in an enviable position. The school receives govemment aid on the basis of $\$ 45.00$ per student per year for those students whose parents are employed in government service. The town of Choctaw, which is rural in nature, furnishes little or no occupational opportunities. The outlying area is devoted principally to farming, and it is from this source that those persons not employed in Oklahoma City receive their livelihood.


## Guidance Procedure used in the Dungee School

Table XI shows agriculture to be the only vocational subject offered boys in the Dungee High School. Considering

## TABLE XI

GUIDANCE PROCEDURE USED BY THE ADMINISTRATION OF THE DUNGEES HIGH SCHOOL, GHOCTAW, OKLAHOMA

| Electives Offered in School. | Iimitations on Student's Choice of Vocational and Non-vocational Subjects | Basis for Guiding Students in <br> Elocting Subjocts | Difficulties Encountered <br> In Guiding Students |
| :---: | :---: | :---: | :---: |
| Vocational Agriculture | Free to elect | No organized procedure used | Negative faculty influence |
| General Shop |  | Individual teachers offer some direc- | Student likes and dism likes for teachers |
| Driver Training |  | tion |  |
| Conmerce |  |  |  |

the proximity of the school in relation to the existing and potential labor market, this would seem to indicate that the administration of Drangee High School has not been as alert as it might have been. Especially is this true when one considers the added gratuity which comes to the school through goverment channels. It would seem that some of this money could be used to enlarge the vocational offering of the school. Indeed, the material used to cover the diplomas given boys finishing Dungee could, in a figurative sense, be used, also, to cover thelr vocational nakedness. Students at Dungee are free to elect subjects they will take over and above those prescribed by the State Department of Education. Table XI shows that no organized procedure is used in guiding students in electing to take vocational or non-vocational subjects. It is left to Individual teachers to give direction. This would seem to indicate a state of confusion. This confusion is indicated even before Table XI Is checked further to show one of the difficulties encountered in placement of students to be faculty influence of a negative nature. An analogy is in order. When one plants com, what does one expect, peanuts? When one sows the seed of confusion, what does one expect, elucidation?

## Occupational Interest

Table XII presents the occupations in which vocational and non-vocational boys, grades 9 and 10 , are interested at present in the Dungee High School. Of thinty vocational boys, only six showed an interest in farming, two in auto mechanies, and two in electricity. Neither auto mechanics nor electricity is taught at Dungee. The remaining twenty vocational boys showed a scattered interest in occupations ranging from business administration through music, medicine, science, and mathematics teacher. More vocational boys showed an interest in becoming physical education, social science, and music teachers than did non-vocational boys. On the other hand, more non-vocational boys (four) showed interest in auto mechanics than did vocational boys (two). Thirty vocational boys showed an interest in ten different occupations while twenty-eight non-vocational boys showed an interest in thirteen occupations. Lack of guidance is clearly indicated here. The wide divergence of occupational interests expressed by both vocational and nonvocational groups would seom to indicato lack of direction on the part of both groups as to where they hope to go,

## Subject Interest

Table XIII shows the same pattern of thinking on the part of vocatlonal and non-vocational boys in regard to

## TABLE XII

OCCUPATIONAL INTIEREST OF 30 VOCATIONAL AND 28 NON-VOCATIONAL BOYS IN THE DUNGEE HIGH SCHOOL, CHOCTAW, OKLAHOMA

| Occupations in which Boys Prosently are Interested | Number Planning to Entor Occupations on Finishing High School |  | Number Planning to Enter of College Career |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Ion-Vocational | Vocational | Non-Vocational |
| Farming | 4 | 1 | 2 | 1 |
| Business Administration | 0 | 0 | 1 | 2 |
| Physical Education Teachor | 0 | 0 | 3 | 0 |
| Social Science Teacher | 0 | 0 | 2 | 1 |
| Auto Mechanics | 0 | 1 | 2 | 3 |
| Science Teacher | 0 | 0 | 3 | 0 |
| Medicino | 0 | 0 | 2 | 6 |
| Music | 0 | 0 | 2 | 1 |
| Mathematies Teacher | 0 | 0 | 1 | 0 |
| Electrician | 0 | 0 | 2 | 1 |
| Givil Service | 0 | 0 | 0 | 1 |
| Carpentry | 0 | 0 | 0 | 1 |

TABLE XII--Continued

| Occupations in which Boys Presentiy are Interested | Number Planning to Enter Occupations on Finishing Hich School |  | Number Planning to Enter Occupations on Completion of College Career |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vocatio | Von-vocational | Vocational | Non-vocational |
| Common Labor | 0 | 3 | 0 | 0 |
| Interior Decorator | 0 | 0 | 0 | 1 |
| Industrial Arts Teachor | 0 | 0 | 0 | 1 |
| Law | 0 | 0 | 0 | 1 |
| Artist | 0 | 0 | 0 | 1 |
| Army | 4 | 2 | 0 | 0 |
| Undecided | 0 | 0 | 2 | 0 |
| Total | 8 | 7 | 22 | 21. |

TABIE XIII
SUBJECIS IN WHICH 30 VOCATIONAL AND 28 NONVOCATIONAL BOYS PRESENTITY ARE INTERESTTED IN THE DUNGEF HIGH SCHOOL, CHOCTAW, OK工AHOMA

their subject interest, as shown in Table XII, regarding their occupational interests. A total of 66.6 percent of the vocational boys showed an interest in vocational agriculture while 63.3 percent of the same group showed an interest in Faglish. This means that only 3.3 percent more of the vocational group showed an interest in vocational agriculture than they did in English. Only 1.7 percent more non-vocational boys showed an interest in science than did
the vocational boys. Table XIII shows further that while 46.4 percent of the non-vocational group was interested in English, 63.3 percent of the vocational group showed an interest in the same subject. This means that 16.9 percent more vocational boys were interested in Finglish than the nonvocational boys. Forty percent of the vocational group showed an interest in music while only 21.4 percent of the non-vocational group showed an interest in the same subject. It is interesting to note that the difference in percent of vocational and non-vocational boys interested in vocational agriculture, 45.2 percent, is only 26.6 percent greater than the difference shown between the two groups in music. Table XI shows that no organized procedure is used in guiding students in the Dungee High School. The data presented in Table XIII substantiates this statement. It would seem that, in the absence of a guidance program, the subject interest of both the vocational and non-vocational group is as overlapping as is the occupational interest of the two groups. A person with preconceived ideas as to the differences between vocational and non-vocational boys on the basis of subject interest would doubtlessly be a bit perplexed on examining Table XIII.

## Occupational Proferences

The occupational preferences of thirty vocational and twenty-eight non-vocational boys, grades 9 and 10, in the

Dunbar High School are show in Figure 3. Scores above the 75 th percentile should be regarded with a high degree of confidence as reflecting a dofinite trend in occupational interest. Scores about the 65 th percentile should be inspected; scores in this range have some significance, but they cannot be regarded with as much confidence as higher scores. Scores falling on or below the 50th percentile indicate lack of well developed interest.

Figure 3 shows that both vocational and non-vocational boys ranked below the 50th percentile in mechanical, computational, scientific, and persuasive interests. This indicates that nelther of the groups have strong enough preferences in any of the areas mentioned above to be considered significant in any way. However, since this study is primarily concerned with comparisons between vocational and non-vocational boys, it might be well to point out briefly that in mechanical preference the vocational group had a percentile score of 43 , and the non-vocational group had a percentile score of 26 . In occupations requiring computational ability, both groups ranked at the 48 th percentile.

The vocational group showed a higher percentile score, 40 , in occupations requiring scientific ability than did the non-vocational group with a percentile score of 22 . The non-vocational group showed greater preference for occupations requiring persuasive ability than did the vocational

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OCCUPATIONAL PREFERENCES FOR 30 VOCATIONAL AND 28 NON-
                    VOCATIONAL BOYS TAKING THE KUDER PREFERENCE RECORD
                IN THE DUNGEE HIGH SCHOOL, GHOCTAW, OKLAHOMA
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Figure 3
group. The non-vocational group had a percentile score of 46 , and the vocational group had a percentile score of 44 .

It is significant to note that the vocational group ranked well above the 50th percentile with a score of 63 in artistic preference. The non-vocational group had a percentile score of 54. This indicates a greater preference for occupations such as advertising designer, artist, poster artist, florist, photographer, and interior decorator on the part of the vocational group.

The non-vocational group had a higher percentile score in preference for occupations requiring literary ability. The non-vocational group had a score of 58, slightly above the 50th percent11e, and the vocational group had a score of 42.

Both vocational and non-vocational boys ranked well above the 50th percentile in preference for occupations requiring musical ability, as the vocational group had a percentile score of 63, and the non-vocational group had a score of 65 . Occupations requiring musical ability include music arranger, music composer, pianist, opera singer, and radio singer.

It is in the field of social service that both the vocational and non-vocational boys showed the highest percentile scores. A percentile score of 75 is considered to indicate a definite interest in or preference for an occupation. The vocational group ranked at the 8ist percentile;
the non-vocational group ranked at the 75 th percentile. The occupations found in the social service area, to name a few, are physical education instructor, cormunity center worker, social worker, scout leader, farm bureau agent, and $4-\mathrm{H}$ Club director.

The vocational boys showed a greater preference for clerical work than did the non-vocational boys. The vocational group ranked at the 60th percentile, and the nonvocational group ranked at the 53rd percentile. Such occupations as clerk, duplicating machine operator, express agent, and file clerk are some jobs requiring clerical ability.

The difference in occupational preference scores made on the Kuder Preference test by the vocational and the nonvocational groups is a matter of degree rather than kind. Both groups ranked high, above the 75 th percentile, in preference for the same occupational area-social service. Both groups had scores between the 50th and 65 th percentile in the same occupational areas--artistic, literary, musical, and clerical. Vocational and non-vocational boys ranked below the 50th percentile in the same occupational areas-mechanical, computational, scientific, and persuasive.

## Analysis of Scores Made on the Primary

 Mental Abilities TestTable XIV presents the distribution of total scores of thirty vocational and twenty-eight non-vocational boys who

TABLE XIV

## DISTRIBUTION OF TOTAL SCORES ON THE S. R. A. PRIMARY MENTAL ABIITTTES TEEST BY 30 VOCATIONAL AND 28 NONVOCATIINNAL BOYS, GRADES 9 AND 10, DUNGEEE HIGH SCHOOI, CHOCTAW, OKIAHOMA


took the Primary Montal Abalities test. It may be noted that the vocational group had a modien soore, the score exoooded by half the groupe of 136 while the non-roeational group had a median seore of 98. This representa a difforence in median of $3 B$ in favor of the vocational group. The vocationel grom showed a mean scove of 139.2 while the nonFocationgl group showed scone of 95. The difference in mean scores is 43.2 in favor of the vocational boys. The Information presented in Table XIV shows that the seore exceeded by half the group was higher for tho vocational group then that for the non-vocational group. Tho vocational group also showed a higher avorage seore on the Prinary Mental Abitities test than did the non-vocatlonal boys.

## Percentlle Scores

Table XV prosents a comparison of the distribution of percentile scores made by thipty wocational and twenty-eight non-wocational boys tho tool the Rrimary Montal Abilities test. As shown by table XV, the vocational group had a nedian score of 27 whule the nom-vocationel group had a nedion score of 4.25 . This represents a diferoneo of 22.75 In median in favor of the vocathonal boys. Fhe vocational groxp had a mean score of 34.80 whele the non-vocational group had a score of 10.71. The atiforence in mean scoves is 24.09 In favor of the vocationel boys.

DISTRIBUTION OF PERCENTILE SCORES MADE ON THE S. R. A. PRIMARY MEINTAL ABILITIES TEST BY 30 VOCATIONAL AND 28 NON-VOCATIONAL BOYS, GRADES 9 AND 10, DUNGEE HIGH SCHOOL, CHOCTAW, OKLAHOMA

| Scores | Vocational Frequency Non-vocational |  |
| :---: | :---: | :---: |
| $91-100$ | 4 | 0 |
| $81-90$ | 1 | 0 |
| $71-80$ | 0 | 0 |
| $61-70$ | 2 | 2 |
| $51-60$ | 1 | 0 |
| $41-50$ | 1 | 1 |
| $31-40$ | 4 | 1 |
| $21-30$ | 5 | 1 |
| $11-20$ | 8 | 23 |
| $1-10$ | $N$ | 10 |
|  | Median 27.0 | Median |

Vocational boys in the Dungee High School, Choctaw, ranked much higher, in comparison with the 18,000 high school students from all over the United States who made up the standardization population on the Primary Mental Abilities test, than did the non-vocational group.

## SUMMARY AND CONCLUSIONS

Data presented in this study, as to the guidance procedure used by administrative heads in the separate schools of Oronulgee, Shawnee, and Choctaw, show that students are not arbitrarily placed in vocational and non-vocational subjects. The problem in the three schools studied seems not to be improper guidance, but lack of it. The extent of guidance done in the schools seems to be limited, more or less, to statements from the faculty members as to what might be expected from the course offerings. The interest which teachers have in keoping up emrollment is not necessarily conducive to giving students clear and unblased guidance in electing to take different subjects. The basis for guiding students in electing to take different subjects, in the three schools used in this study, is weak, and suggests the problems encountered in directing students in electing to take the different course offerings. Student likes and dislikes for teachers, negative teacher influence, and selection of courses on the basis of difficulty alone are fruits of an unorganized guidance program.

Vocational and non-vocational boys in the three schools used in this study were asked to fill out occupational interest surveys. Analysis of data showed vocational boys
to have more limited occupational interests than the nonvocational group. Of eighty-five vocational boys, fiftythree, or 62 percent, showed interest in strictly vocational occupations: forityme in farming, eight in auto mechanics, one in brick masonry, two in electrical work, and one in carpentry. The largest number of non-vocational boys showing interest in one occupation was sixteen. Sixteen nonvocational boys showed interest in medicine. In the absence of an organized guidance program, the writer doubts that these boys are aware of the expense and time the field of medicine entails. From the information gathered and analyzed, it would seem that vocational boys are given more direction than is given the non-vocational boys.

From the standpoint of interest in curricula offerings, vocational and non-vocational boys diffored widely in only two subjects. Sixty-nine vocational boys showed interest in vocational agriculture while only two of the group showed interest in general shop. Twenty-five non-rocational boys showed interest in general shop while six showed interest in vocational agriculture. The number of vocational boys interested in English, music, and science was somewhat higher than the number of non-vocational boys showing interest in the same subjects. Seventy-eight vocational boys showed interest in the subjects just mentioned; fifty-eight nonvocational boys showed like interest. Overlapping interest on the part, of vocational and non-vocational boys in all
subjects excepting vocational agriculture and general shop prompts the wifter to wonder to what degree the vocational agriculture and shop teachers influenced the boys who elected to take the courses.

The Kuder Preference Record examination was administered in the three schools used in this study as a means of comparing the occupational preferences of vocational and nonvocational boys in the schools. Analysis of scores made on the examination reveal that vocational and non-vocational boys showed greater preference for occupations in the social service area than in any other area of occupational interest. Some of the occupations in the social service area are as follows: directing adult education work, supervising $4-\mathbb{H}$ Club and $\mathbb{N}$. F. A. work, vocational counseling, and directing playground activities. Both vocational and non-vocational boys showed low percentile scores in preference for occupations requiring mechanical ability. It would be interesting to know what change would occur in the percentile ranking of both groups in their stated preference for the various occupational areas if they were counseled on the possibilities of the various areas. Lack of guidance and counseling in the schools used in this study is, in the opinion of the writer, responsible for the lack of interest shown in many of the occupational areas, as reflected by the scores falling on or below the 50th percentile.

The S. R. A. Primary Mental Abilities test was given in the three high schools used in this study to compare mental abilities of vocational and non-vocational boys in the schools. An analysis of scores made on the test shows that vocational boys rank higher on the basis of total mental abilities than did the non-vocational group. However, whon the scores made by both groups are compared with scores of the 18,000 high school studonts over the United States who made up the standardization population, they are found to be low.

The information covered in this study was obtained, for the most part, from surveys and tests administered to the students. This would suggest, the writer feels, that these tools could be useful in an organized guidance program in the three schools used in this study. To successifully guide students necessitates knowing them. To know students in an unblased and unprejudiced manner necessitates more than the teacher's personal opinion of the students. This, the writer thinks, suggests a sound guldance program.

It is the opinion of the writer, also, that a battery of tests used to "locate" students in terms of their aptitudes, occupational preferences, and social adjustments would serve as a basis for a good guidance program in the separate schools of Olanigee, Shawnee, and Choctaw. The writer feels that a conmittee, rather than one person, should be given the responsibility of administering and analyzing
test data. In so doing, the writer thinks, the schools will avoid the guidance program becoming a "one man show, " with littie interest and cooperation being given by others. The committee responsible for testing and analyzing test data should follow-up this data with distribution of the information on each student to the home room teacher of the students involved. Each home room teacher should use this information In counseling and guiding the students under his or her immediate supervision.

The vocational agriculture teacher, because of the nature of his work which takes him outside the school, could augment the guidance program by rendering direct service in the compilation of data as to the occupational opportunities found in the school service area.

Cronback, Lee J. Essentials of Psychological Testing, New York: Harper and Brothers Publishing Company, 1949.

Kuder, Frederic G. Kuder Preference Record. Chicago: Science Research Association, 1942.

McClain, Glen A. "Factors That May Have Influenced the Grades Made on the Junior Standing Examinations in Mathematics and Finglish By Students at the Oklahoma Agricultural and Mechanical College in the Fall of 1951." M. S. Thesis, Oklahoma Agricultural and Mechanical College Iibrary, 1952.

Thurstone, I. I. Manual for the Primary Mental Abilities. Chicago: Science Research Association, 1947.


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## OCCUPATIONAL INTEREST SURVEY

1. Name of School
Date $\qquad$
2. Pupil's Name $\qquad$
3. What is your father's Occupation? $\qquad$
4. In what subjects are you particularly interested? $\qquad$
$\qquad$
$\qquad$
$\qquad$
5. In what subjects do you make best grades? $\qquad$
$\qquad$
6. Are you now enrolled in these subjects? $\qquad$
7. Is there any occupation that you plan to enter when you finish school? Yes $\square$ No $\square$
8. If yes, what is this occupation? $\qquad$
9. Why do you plan to enter this occupation (check the appropriate reason) Desire of parents_-_-_-_ Wish to carry on family business Monitary reasons alone $\qquad$
List other reasons not mentioned:
10. 
11. 
12. Do you plan to go to college? $\qquad$
13. What field of study do you plan to enter there? $\qquad$

## VITA

> T. E. Inglish
> candidate for the degree of Master of Science

Thesis: A COMPARATIVE STUDY OF VOCATIONAL AND NON-VOCATIONAL BOYS IN THREE NEGRO HIGH SCHOOLS IN OKTAHOMA.

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# THESIS TITLE: A COMPARATIVE STUDY OF VOCATIONAL AND NON-VOCATIONAL BOYS IN THREE NEGRO HIGH SCHOOLS IN OKLAHOMA 

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[^0]:    ${ }^{\text {I }}$. L. Chisholm, Guiding Youth in the Secondary School (New York, 194.5), p. 366.
    ${ }^{2}$ Leonard V. Koos and Grayson N. Kefauver, Guidance in Secondary Schools (New York, 1937), p. 416.

[^1]:    $3_{\text {Arthur J. Jones, Principles of Guidance (New York, }}$ J. 1945), p. 422.
    ${ }^{4}$ T. V. Koos, J. M. Hughes, P. W. Hutson, and W. C. Reavis, Administering the Secondary School (New York, 1940), p. 57.

[^2]:    ${ }^{5}$ Shelton W. Cole, "Cormunity Finployment Opportunities for High School Students, "Industrial Arts and Vocational Education, XI (Aprill, 1953), No. 4.
    ${ }^{6}$ George K. Bennett, Harold G. Seashore and Alexander $G$. Wesman, "Aptitude Testing: Does it Prove Out in Guidance Practices? The Vocational Guidance Journal, XXX (May, 1952), No. 8.

[^3]:    * 

    Not offered in Dunbar High School curriculum.

[^4]:    ${ }^{11}$ A copy of the answer pad for the S. R. A. Primary Abilities test is shown in the Appendix.

    12 Examination manual for the S. R. A. Primary Mental Abilities test.

