CALIFORNIA STATE COLLEGE AT HAYWARD
Department of Counseling and Pupil Personnel

AN INVESTIGATION OF THE RESULTS OF A VOCATIONAL GUIDANCE UNIT GIVEN TO A GROUP OF HIGH SCHOOL STUDENTS

by

James L. McKrell

Approved

Thesis Adviser Thomas A. Tolbert Date June 9, 1966
Committee Member James R. Barlow Date June 9, 1966
Committee Member Douglas S. Sperry Date June 9, 1966

Units of Credit ___________
AN INVESTIGATION OF THE RESULTS OF A VOCATIONAL GUIDANCE
UNIT GIVEN TO A GROUP OF HIGH SCHOOL STUDENTS

A Thesis
Presented to
the Division of Education
California State College at Hayward

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education
Concentration in Pupil Personnel

by

James L. McKrell

June 1966
To Edith G. Van Delden and Judith D. McKrell
## Table of Contents

List of Tables ........................................................................................................... v

Chapter

I. Introduction ............................................................................................................. 1
   Statement of the Purpose of the Study ................................................................. 1
   Background of the Problem ..................................................................................... 1
   General Statement of the Problem ......................................................................... 5
   Significance of the Problem .................................................................................... 6

II. Review of Pertinent Literature ............................................................................ 8
   Development of You: Today and Tomorrow .......................................................... 8
   Development of Gribbons' RVP Test ..................................................................... 9

III. Design and Procedures ....................................................................................... 14
   Specific Statement of the Problem ......................................................................... 14
   Hypotheses to be Tested ......................................................................................... 14
   General Methodology ............................................................................................. 15
   Population and Sample .......................................................................................... 16

IV. Results ................................................................................................................. 22
   Testing of Hypotheses ............................................................................................ 22
   Interpretation of the Results ................................................................................... 27

V. Summary ................................................................................................................ 35
   Conclusions ............................................................................................................ 35
   Recommendations ................................................................................................. 36
   Limitations ............................................................................................................. 37

References ................................................................................................................. 40

Appendix A - Letter to Examinee ............................................................................ 45

Appendix B - Vocational Guidance Unit Used in the Study .................................... 46

Appendix C - RVP Test and Explanation of Scoring ............................................... 48
Appendix D - Tally Sheet for Scoring Individual RVP Test ........ 52
Appendix E - Distribution of Questions among the Eight RVP Scales. 53
## List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A Comparison Between the Experimental Group and the Control Group on ITED 3 Using Fisher's t-Test of Significance</td>
<td>19</td>
</tr>
<tr>
<td>2.</td>
<td>A Comparison Between the Experimental and Control Samples on ITED 3, ITED 4, and ITED Composite Using Fisher's t-Test of Significance</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>A Comparison Between the Experimental and Control Samples on First RVP Test Administered in May 1965 Using Fisher's t-Test of Significance</td>
<td>24</td>
</tr>
<tr>
<td>4.</td>
<td>A Comparison Between the Experimental Sample's First and Second RVP Tests - First Test May 1965 - Second Test March 1966 Using Fisher's t-Test of Significance</td>
<td>25</td>
</tr>
<tr>
<td>5.</td>
<td>A Comparison Between the Control Sample's First and Second RVP Tests - First Test May 1965 - Second Test March 1966 Using Fisher's t-Test of Significance</td>
<td>26</td>
</tr>
<tr>
<td>6.</td>
<td>A Comparison Between the Experimental and Control Samples on Second RVP Test Administered in March 1966 using Fisher's t-Test of Significance</td>
<td>28</td>
</tr>
<tr>
<td>7.</td>
<td>Correlation Coefficients Between Experimental Groups' RVP Scores and ITED Scores Second RVP Test - March 1966</td>
<td>29</td>
</tr>
<tr>
<td>8.</td>
<td>Correlation Coefficients Between Control Group's RVP Scores and ITED Scores Second RVP Test - March 1966</td>
<td>30</td>
</tr>
<tr>
<td>10.</td>
<td>Correlation Coefficients Among RVP Scales Control Group Second RVP Test - March 1966</td>
<td>34</td>
</tr>
</tbody>
</table>
Chapter 1

Introduction

This study will attempt to measure the results of a unit in vocational guidance administered to an experimental group of high school students. The ability of the experimental group and a control group to make useful and proper judgments was measured through the use of a test designed for this purpose (Appendix C). The unit in vocational guidance was structured around the Educational Testing Service publication, You: Today and Tomorrow, by Martin R. Katz (Appendix B).

Background of the Problem

The method by which a majority of young people choose a career seems to be simply answering the question, "What do you want to be when you grow up?" Using this as a generalization, Peters (1963) describes the problem faced by the vocational counselor who must deal with the confusing mass of informational material regarding careers, and also make an attempt at understanding the diverse methods by which such material is to be presented to counselees.

In bringing information to the attention of a counselee, the counselor anticipates some type of change in the behavior or outlook on the part of the counselee. Where this procedure has been pre-planned, it is believed that the counselor has based his expectations, either knowingly or unknowingly, on vocational development theory.

Vocational development theories seem to fall into one of two very broad categories, constitutional and developmental. According to constitutional theory, an individual has certain physical or psychological characteristics which equip him for certain types of occupations. Bordin, Nachmann, and Segal (1963) describe occupational choice as the satisfying
of physical and emotional needs. A doctor and a butcher can be similar constitutionally, but different as to the level of occupation each is capable of achieving.

Developmental theory, on the other hand, describes vocational choice as a process wherein the individual follows certain steps in arriving at his appropriate vocational station. There is an immediate branching out into different sub-theories all of which base themselves, at least in part, on this step-by-step procedure. Super (1957) has described a five-step process through which an individual moves in his developmental path toward educational and vocational goals:

1. The individual is faced with a new task of vocational development.
2. He brings to bear on that task his potential for and his repertoire of behavior.
3. He has some degree of success or failure in handling the task.
4. He incorporates into his experience whatever has been learned in this experience.
5. He used this learning to add to or modify his existing repertoire of behavior.

LoCasio (1964) sees this process delayed or impaired at steps 2 and 3 in cases where the individual, for one reason or another, cannot experience much success in handling the task. The step-by-step procedure remains although a greater or lesser number of steps can be described by the individual theorist.

A survey of available literature indicates that even these sub-theories branch out, especially with regard to those factors which influence the individual’s decision-making along the way. Holland (1964)
shows points in the step-by-step process of vocational development in terms of the youngster’s image of an occupation. Here one can discern a combination of constitutional and developmental theory. The personality type of the youngster is constitutional, but is developed as the result of the influence of his environment. The youngster may or may not be conscious of this influence. As he begins to develop a certain type of personality, such as realistic, intellectual, social, conventional, enterprising, or artistic, his mind will, consciously or unconsciously visualize that type of occupation, such as engineer, physicist, teacher, accountant, business executive, or artist which seems appropriate so far as his own conceptions can tell him.

Steimel and Suziedelis (1963) describe the youngster’s vocational choice as being a function of the interplay between the child and his parents. The role of the parents is not necessarily that of a tyrant, but one of continuous influence, subtle or otherwise.

Kinnane and Gaubinger (1963) have examined the relationship between the Allport-Vernon-Linzey Study of Work Values and the youngster’s corresponding work values by the use of the Work Values Inventory. The results of this study indicated a significant relationship between the two sets of values. This relationship may be even higher than their data indicate since the individual usually tends to temper his abstract values when applying them to the practical world of work. As will be pointed out later in this study, values in general tend to be ignored, or at best misunderstood, even though they provide probably the most important basis for choosing a certain occupation.

Schutz and Blocher (1961) see the youngster developing his level of self-satisfaction and choosing an occupation (level of aspiration) which
seems consistent with his self-rating. The instrument which they devised, the Descriptive Check List, should be useful to the counselor in that it would enable him to work with the youngster's attitude himself along with his attitude toward the world of work.

Although many of the studies point to the fact that youngsters tend to choose occupations from fantasy, Davis, Hagan, and Strouf (1962) have gathered data which support an opposing theory by Ginsburg. The results of their study indicate that youngsters aged 12 make tentative choices which, in their study, correlated positively with IQ and sex. This indicates that more research needs to be conducted to provide a more definitive description of that age group.

Yet another influencer of occupational choice is described by Uzzell (1961). Using a proportionate random sample of 301 seniors in fourteen different urban high schools, he demonstrated that better than two-thirds of them had given consideration to individuals already engaged in certain occupations, and roughly one-half admitted that they were influenced by these "models."

A vast amount of published material is available describing the way young people make educational and vocational choices. In surveying this literature, which is of undoubted value in dealing with the counselees one at a time, the reader is constantly made aware of the fact that certain very important factors, such as opportunities, interests, abilities, and values, seem to be held for later consideration when they should logically be of primary importance. The reasons for this problem can be based, to a large degree, on the difficulty in measuring these factors and the greater difficulty in applying them to the world of work in some manner practicable and workable to the youngster. Stated in
another way, the counselor is faced with the problem of finding out what
the student's needs are, and then finding ways of meeting them.

General Statement of the Problem

Along with the problem of dealing with the student's needs re­
garding educational and vocational planning is the apparent lack of
published research dealing statistically with the effects of vocational
guidance in general, and with units in vocational guidance in particular.
Some method is needed to determine each individual's needs at any specific
time, and the type of help appropriate for each person.

There are a multitude of different types and degrees of guidance
services available in different schools throughout the country. These may
be structured or unstructured, formal or informal, group or individual, or
various combinations of any and all of them. Again, however, there is a
general lack of empirical studies to be found in professional literature
which evaluate vocational guidance units.

A continuing study by Gribbons (1960, 1964a, 1964b, 1964c, 1965a,
1965b, 1966 unpublished) has developed a testing instrument which is
designed to be used for purposes of measuring a student's needs in his
vocational and educational planning. This testing instrument was developed
while Gribbons was evaluating a vocational guidance unit which was, in 1960,
in its final stages of refinement for general publication.

The testing instrument developed by Gribbons, called the RVP test
(Readiness for Vocational Planning), was used in the present study. The
vocational guidance unit used by Gribbons was also used in the present
study. This unit is structured around the Educational Testing Service
publication, You: Today and Tomorrow, by Martin R. Katz.

Included in Gribbons' studies were one-hundred eleven boys and girls
from five different communities around Boston who were tested by his RVP test just before they had participated in the vocational guidance unit and again two years later. The results of these two testing sessions indicated that there was a general increase in their abilities to make appropriate educational and vocational decisions. Interpretation of the results also indicated that different types of information would have been appropriate for different individuals according to their scores on the RVP test.

The indicated increases in measured decision-making ability on the part of Gribbons' group was considered a possible result of their participation in the vocational guidance unit. It was not definitely established, however, that other variables were not responsible for the changes. Perhaps the normal process of growing up would have brought about the increases even if the vocational guidance unit had not been given. The purpose of the study proposed herein is to demonstrate statistically whether or not the differences in the individuals' abilities to make sound educational and vocational decisions can be attributed to their participation in the vocational guidance unit.

Significance of the Problem

A structured unit in vocational guidance which can be administered to comparatively large groups of students simultaneously presents both potential advantages and disadvantages. The advantages lie in the area of better planning on the part of the individual students, and in more efficient use of facilities, teachers, counselors, and vocational and educational literature. Tests, texts, pamphlets, and vocational brochures can be more easily utilized, controlled, and preserved in this manner than if they were simply made available to the individual students at their
convenience.

The potential disadvantages in the use of such a unit become operable if the unit fails to produce the desired results. If no demonstrable progress is made toward the students' maturation, the expenditure of time, energy, and money occasioned by the use of any specific unit could be considered wasted.

The purpose of the study proposed herein is to establish statistically whether or not positive significant changes in individual students' vocational maturation can be attributed to their exposure to a standardized unit in vocational guidance. If the positive effects are significant, the unit may then be considered successful and worthwhile. The measurements of the levels of vocational maturity can then be used in helping the individual students in various ways:

1. bringing more sophisticated career information to those who score high on measured vocational maturity; and
2. bringing more appropriate types of information and assistance to those who demonstrate specialized deficiencies in their vocational maturation.

If the results of the study should be insignificant or negative, the knowledge thus gained would prove helpful in avoiding ineffective methods of vocational guidance and in channeling a search for better methods.
Chapter 2

Review of Pertinent Literature

Development of You: Today and Tomorrow

The publication, You: Today and Tomorrow, was produced in order to fill a need felt by counselors and teachers who were concerned with pupils' educational and vocational planning. Educators quickly recognize the fact that there are not enough counselors to go around, and that counselors themselves seldom have enough time to give sufficient help to every student toward making proper decisions about the future. What was needed was a type of text that could be used by any experienced classroom teacher with a minimal amount of guidance training. Such a text would still have to deal with all aspects of educational and vocational planning.

It is unfortunate that the student must make choices at the eighth and ninth grade levels which tend to close off many possible paths of preparation. A great amount of research has shown that a majority of students in this age group cannot yet make firm commitments regarding their lifetime careers. In developing the text of You: Today and Tomorrow, Katz (1962) felt that preparation for wise decision-making was more important than the decisions themselves. Therefore, under a grant from the Rockafeller Brothers' Fund, Katz set out to develop the publication which was refined into the classroom unit used in this study. This was accomplished under the auspices of the Educational Testing Service Guidance Inquiry, supervised by its National Advisory Board (Katz 1962, pp 127-127).

The evaluation of the booklet generally followed two stages with several phases to each stage. Initially, the content validity of the
text had to be attested to by the National Advisory Board and by other educators and counselors throughout the country. A 34-item test was developed which was to be used to measure the students' understanding of all of the various factors involved in the educational and vocational decision-making process. Here again, it must be mentioned that the decision-making process was considered more important than the decisions themselves.

The booklet was then made available for public school use with the stipulation that the school agree to participate in the evaluation procedure. This first statistical evaluation included too few teachers and students to be of general applicability. Its main value was in the fact that both teachers and students felt very enthusiastic about the unit.

The second stage of the evaluation included one-hundred thirty-six schools in thirty-one states. Eighty schools returned completed sets of data representing almost four thousand eighth and ninth grade students. Each of the students was tested before and after participating in the unit, and the results showed significant increases in their scores on the 34-item test previously mentioned. Questionnaires completed by the teachers indicated a general eagerness to use the booklet as the basis for a vocational guidance unit although the length of time to be devoted to the unit varied greatly. The shortest time mentioned was two weeks, while the longest time was something in excess of thirty-six weeks. In its final recommendation, ETS mentions six to nine weeks as proper.

Development of Gibbons’ RVP Test

A separate and independent evaluation of You: Today and Tomorrow
was conducted by Gribbons (1964a) and produced similar results. Those students who had participated in the guidance unit showed marked increases in their measured decision-making ability. As developed by Gribbons, this decision-making ability is referred to as "readiness for vocational planning," or RVP. The instrument used to measure each student's RVP score is the RVP test (Gribbons 1964c).

Initially, the RVP test was administered orally to one student at a time. Each of the one-hundred eleven boys and girls included in the study was tested twice. The first test was administered just before the presentation of the vocational guidance unit, and the second two years later. A sample of the one-hundred eleven interviews was taped during the first administration of the test. The tapes were then scored by five different experienced counselors and their separate scorings compared. There were four perfect correlations (1.00) and one nearly perfect (0.95), indicating that the scoring manual developed by Gribbons made possible reliable differentiation among the pupils in measuring their RVP levels.

Gribbons' RVP Test includes over forty questions. Analysis of the responses to the individual questions resulted in their distribution among eight separate scales, each measuring a different trait. A discussion of each of these scales follows:

I. Awareness of Factors to Consider in Curriculum Choice

This scale measures the student's awareness of his interests, abilities, values, subjects available, content of the different courses offered, and the relationship of all of these factors to curriculum choice. Judgments are to be made on the basis of the pupils' awareness of these factors without regard to his accuracy in appraising himself.
II. Awareness of Factors to Consider in Occupational Choice

This scale measures the student's awareness of his interests, abilities, values, educational requirements, definitions of occupations, and occupational duties. Judgments are made on the basis of the pupil's awareness of these factors without regard to his accuracy in appraising himself.

III. Verbalized Strengths and Weaknesses

This scale measures the pupil's ability to describe what he believes to be his strengths and weaknesses and how they relate to the world of work. Judgments are made here without regard to his accuracy in appraising himself.

IV. Accuracy of Self-Appraisal

This scale measures the pupil's accuracy in estimating his strong and weak points in areas of study (math, English, general). His estimates are compared to actual test scores available to him and to school officials. Discrepancy scores are obtained to measure his accuracy.

V. Evidence for Self-Rating

This scale measures the student's ability to cite reliable evidence (grades, experiences, test scores, etc.) to substantiate his self-rating. All sources of evidence available to the examiner are also available to the student.

VI. Awareness of Interests and Their Relation to Occupational Choice

This scale measures the student's ability to relate interests to occupational choice. Interests are generally believed to be relatively unstable at the eighth and ninth grade levels, but a general awareness of them and what they mean is considered important enough to be a part of a pupil's overall ability to make decisions about his future.
VII. Awareness of Values and Their Relation to Occupational Choice

This scale measures the student's ability to relate values to occupational choice. Values are considered by many to be of primary importance in reaching valid vocational decisions. Kinnane and Gaubinger (1963) suggest that students tend to adjust their own life values to agree with those values that they see in occupations (work values). Properly uncovering one's own life values and then discovering occupations which really have similar sets of values must be one of the most important tasks with which the student is faced.

VIII. Independence of Choice

This scale measures the student's ability to work with information from many sources, advice from many people, and still assume responsibility for his own decisions.

The two sets of scores gathered by Gribbons (1964c) yielded data which supported the hypothesis that there were significant increases in the students' RVP scores over the two-year period. It was also noted that many of the eighth-graders scored above the tenth-grade mean, and many tenth-graders scored below the eighth-grade mean. This indicates that many of the eighth-graders were ready to make fairly sophisticated decisions regarding their educational and vocational futures while many tenth-graders were not.

A subsequent series of studies by Gribbons and Lohnes (1965) indicated that the eight RVP scales mentioned above represent at least a tentative structure for evaluating a pupil's ability to make useful and accurate decisions. As future data are gathered, however, these eight scales will be continually evaluated and changed when changes seem warranted.

In a discussion of Gribbons' RVP scales, Super (Gribbons 1964b, p25)
notes that, although they have little predictive validity for the non-college preparatory student, their predictive validity for the college preparatory student is as high in the eighth grade as in the tenth. It again becomes apparent that, for many students, decisions regarding their educational futures can be made as well in the eighth grade as in the tenth.

Gribbons has stated that he hopes to develop the RVP test further so that it may be used as a pencil-and-paper test instead of only as an oral test. All data gathered from the present study will be made available to him in recognition of the invaluable aid and assistance he has given this writer.
Specific Statement of the Problem

The purpose of this study will be to investigate the results of a vocational guidance unit given to a group of high school students. The unit was structured around the Educational Testing Service publication, *You: Today and Tomorrow*, by Martin R. Katz. An experimental group of approximately one-hundred forty ninth-graders participated in the unit which was administered over a period of six weeks. This group met in smaller groups of about thirty-five students each, one hour per day for the six-weeks period. Appendix B includes the general outline of the full unit.

The experimental group was compared to a control group through two administrations of Gribbons' RVP test (Appendix C). The control group included a similar group of approximately one-hundred forty ninth-graders who had received no formal unit in vocational guidance. The first administration of Gribbons' RVP test took place immediately following the completion of the unit, May 1965. The second administration took place ten months later, March 1966.

Hypotheses to be tested

Data were gathered concerning four specific questions which will be investigated using the null hypothesis. The four questions and the null hypothesis form of each follow:

1. Are RVP scores significantly higher for an experimental group than for a control group immediately after the experimental group has participated in a vocational guidance unit?

\[ H_0 \] - There is no significant difference between the RVP scores
achieved by an experimental group and those achieved by a control group immediately after the experimental group has completed a vocational guidance unit.

2. Have the RVP scores for the experimental group changed significantly over a period of ten months following the completion of the vocational guidance unit?

\( H_0 \) - There is no significant difference between the RVP scores achieved by the experimental group immediately after they have completed the unit in vocational guidance and the RVP scores achieved by the same group ten months later.

3. Have the RVP scores for the control group changed significantly over a period of ten months following the experimental group's completion of the vocational guidance unit?

\( H_0 \) - There is no significant difference between the RVP scores achieved by the control group immediately after the experimental group has completed a unit in vocational guidance and the RVP scores achieved by the same control group ten months later.

4. Are the RVP scores for the experimental group significantly higher than those for the control group ten months after the experimental group has completed the unit in vocational guidance?

\( H_0 \) - There is no significant difference between the RVP scores achieved by the experimental group and those achieved by the control group ten months after the experimental group has completed a unit in vocational guidance.

General Methodology
Both groups were tested using the RVP test at the conclusion of the vocational guidance unit. Random samples of thirty boys from each group were chosen. Following a period of ten months, both samples were re-tested using the same RVP test. All of the results were read and scored by the same examiner. A coding procedure was followed in order to eliminate any examiner bias. In addition to the coding procedure, Gribbons' scoring manual was followed very closely and carefully in scoring each test. This scoring manual is the one which produced the five very high correlation coefficients mentioned in Chapter 2. All judgments regarding the students' responses to test questions were made according to Gribbons' explicit instructions which are included in his scoring manual.

The scores of the two RVP test administrations were recorded on separate tally sheets for each individual (see Appendix D). On each tally sheet the scores were distributed among the eight RVP scales in a manner prescribed by Gribbons in his scoring manual (see Appendix E). All of these data were then coded and punched on data processing cards. The statistical manipulations were then completed on the 1620 computer located at California State College at Hayward. Programs for obtaining the means, standard deviations, and tests of significance of difference were used. Fisher's t-Test was used on a two-tailed test of significance between population means. The null hypotheses mentioned above were to be rejected where the t was found to be significant beyond the .10 level of confidence.

Population and Sample

The data gathered and analyzed in this study were obtained through the administration of Gribbons' RVP test to the two samples of boys. The first sample, the experimental sample, represented approximately one-
hundred forty pupils who participated in the unit in vocational guidance. The second sample, the control sample, represented approximately one-hundred forty pupils who received no structured vocational guidance unit.

Each of the larger groups represented the total counseling group of one teacher/counselor at the high school where the study was conducted. This is a high school of about two-thousand enrollment which includes a fairly homogenous student body from lower and lower middle income families. There is a very small negro minority comprising approximately one percent of the total school population. The course offerings at the school include academic, commercial, industrial arts, fine arts, and general subjects. Data gathered through the administration of the Iowa Tests of Educational Development indicate that the school population is slightly above the national average throughout. The top twenty-five percent of students are considered able to achieve satisfactorily at the college level after graduating from high school. The majority of graduates can be expected to enter training programs other than college, such as the armed forces, trade and technical schools, and apprenticeship programs.

As each student is programmed into the school, he is assigned to a teacher/counselor with whom he remains so long as he attends the school. Such assignments are made indiscriminately so that there is no reason to assume that there is any significant difference between counseling groups with regard to background, intelligence, or other important personality traits. Table 1 gives a comparison between the two groups on ITED 3 (Iowa Tests of Educational Development, Test 3, a reading test). Although there was a slight superiority noted in the experimental group over the control group on this test, the difference was not statistically
significant.

Table 2 gives a comparison between the two samples on three different ITED scores, ITED 3, ITED 4, and ITED Composite. ITED 3 is a verbal test, ITED 4 is a math test, and ITED Composite is an overall score used to estimate the student's achievement level throughout his school subjects.
Table 1
Comparison Between the Experimental and Control Groups on ITED 3* Using Fisher's t-Test of Significance

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>12.4</td>
<td>4.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>12.1</td>
<td>4.31</td>
<td>0.03</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

*ITED 3 - Appropriateness of Expression in Use of Language
Table 2

A Comparison Between the Experimental and Control Samples on
ITED 3, ITED 4, and ITED Composite

Using Fisher's t-Test of Significance

<table>
<thead>
<tr>
<th>ITED Test</th>
<th>Group</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITED 3 - Appropriateness of</td>
<td>Exp</td>
<td>11.6</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expression in Language</td>
<td>Cont</td>
<td>12.7</td>
<td>4.0</td>
<td>1.05</td>
<td>N.S.</td>
</tr>
<tr>
<td>ITED 4 - Quantitative Thinking</td>
<td>Exp</td>
<td>11.7</td>
<td>4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>13.4</td>
<td>6.2</td>
<td>1.19</td>
<td>N.S.</td>
</tr>
<tr>
<td>ITED Composite</td>
<td>Exp</td>
<td>12.6</td>
<td>4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>14.0</td>
<td>5.3</td>
<td>1.11</td>
<td>N.S.</td>
</tr>
</tbody>
</table>
There seemed to be a noticeable superiority on the part of the control sample over the experimental sample. This difference was also found to have no statistical significance.

The data cited indicate that there is no significant difference between the experimental group and control group, or between the experimental sample and control sample.

The teacher/counselor in both cases is credentialed by the State of California. The duties of the teacher/counselor include all aspects of personal, educational and vocational counseling and guidance. There has been no structured unit in vocational guidance used in the school by any other member of the guidance staff. The unit used in this study is the only one thus far considered by the school. All other activities in the normal guidance procedure are informal and usually individual.
Testing of hypotheses

The null hypothesis form of the first question to be investigated anticipated no significant difference between the experimental and control samples with regard to their RVP scores on the first administration of the RVP test. The null hypothesis was to be rejected if the data found differences significant beyond the .10 level of confidence. Table 3 contains the data to be used in accepting or rejecting the null hypothesis.

For Scale IV, Accuracy of Self-Appraisal, the difference between the experimental and control samples was found to be significant beyond the .02 level of confidence. For all other scales, the differences were significant beyond the .001 level of confidence (Van Dalen, 1962, p387). This indicates that the experimental group achieved definitely superior RVP scores immediately after completing the vocational guidance unit. The null hypothesis is therefore rejected on this question.

The null hypothesis form of the second question to be investigated anticipated no significant difference between the experimental sample’s first and second RVP test scores. The null hypothesis was to be rejected if the data indicated differences significant beyond the .10 level of confidence. Table 4 contains the data to be used in accepting or rejecting the null hypothesis.

The data in Table 4 indicate that, while there were very slight changes up or down on the various RVP scales, there was no significant difference noted on any scale. Therefore the null hypothesis can be accepted for question 2 on all eight RVP scales.
The null hypothesis form of the third question to be investigated anticipated no significant difference between the control sample's first and second RVP scores. The null hypothesis was to be rejected if the data indicated differences significant beyond the .10 level of confidence. Table 5 contains the data to be used in accepting or rejecting the null hypothesis.

The data in Table 5 indicate that there were significant changes upward for Scales I, II, III, VI, VII, and VIII. The levels of confidence were .001 for Scale I, .02 for Scale II, .10 for Scale III, .01 for Scale VI, .001 for Scale VII, and .02 for Scale VIII. There were no significant differences noted for Scales IV and V. The null hypothesis, therefore, was rejected for all Scales except IV and V where it was accepted.

The null hypothesis form of the fourth question to be investigated anticipated no significant difference between the experimental and control samples with regard to their RVP scores on the second administration of the RVP test. The null hypothesis was to be rejected if the data found differences significant beyond the .10 level of confidence. Table 6 contains the data to be used in accepting or rejecting the null hypothesis.

The data in Table 6 indicate that while most of the differences between the two samples are somewhat smaller than was the case with the first RVP test, the experimental sample maintained a significant superiority over the control sample. In all Scales, the null hypothesis was rejected since the t's were found to be significant beyond the .05 level of confidence.
Table 3
A Comparison Between the Experimental and Control Samples on
First RVP Test Administered in May 1965
Using Fisher's t-Test of Significance

<table>
<thead>
<tr>
<th>RVP Scale</th>
<th>Group</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Factors in Curriculum</td>
<td>Exp</td>
<td>19.8</td>
<td>7.3</td>
<td>4.89</td>
<td>.001</td>
</tr>
<tr>
<td>Choice</td>
<td>Cont</td>
<td>10.8</td>
<td>6.0</td>
<td>4.89</td>
<td>.001</td>
</tr>
<tr>
<td>II Factors in Occupational</td>
<td>Exp</td>
<td>15.6</td>
<td>4.7</td>
<td>6.69</td>
<td>.001</td>
</tr>
<tr>
<td>Choice</td>
<td>Cont</td>
<td>7.1</td>
<td>5.1</td>
<td>6.69</td>
<td>.001</td>
</tr>
<tr>
<td>III Verbalized Strengths</td>
<td>Exp</td>
<td>8.8</td>
<td>3.1</td>
<td>4.21</td>
<td>.001</td>
</tr>
<tr>
<td>and Weaknesses</td>
<td>Cont</td>
<td>5.3</td>
<td>3.5</td>
<td>4.21</td>
<td>.001</td>
</tr>
<tr>
<td>IV Accuracy of</td>
<td>Exp</td>
<td>6.4</td>
<td>1.9</td>
<td>2.63</td>
<td>.02</td>
</tr>
<tr>
<td>Self-Appraisal</td>
<td>Cont</td>
<td>4.7</td>
<td>3.0</td>
<td>2.63</td>
<td>.02</td>
</tr>
<tr>
<td>V Evidence for</td>
<td>Exp</td>
<td>3.5</td>
<td>2.0</td>
<td>5.33</td>
<td>.001</td>
</tr>
<tr>
<td>Self-Rating</td>
<td>Cont</td>
<td>1.1</td>
<td>1.4</td>
<td>5.33</td>
<td>.001</td>
</tr>
<tr>
<td>VI Awareness of Interests</td>
<td>Exp</td>
<td>5.6</td>
<td>3.1</td>
<td>4.93</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>2.3</td>
<td>1.9</td>
<td>4.93</td>
<td>.001</td>
</tr>
<tr>
<td>VII Awareness of Values</td>
<td>Exp</td>
<td>4.9</td>
<td>3.9</td>
<td>5.21</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>0.9</td>
<td>1.5</td>
<td>5.21</td>
<td>.001</td>
</tr>
<tr>
<td>VIII Independence of Choice</td>
<td>Exp</td>
<td>5.4</td>
<td>2.4</td>
<td>5.08</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>2.6</td>
<td>2.0</td>
<td>5.08</td>
<td>.001</td>
</tr>
</tbody>
</table>
Table 4
A Comparison Between the Experimental Sample's First and Second RVP Tests - First Test May 1965 - Second Test March 1966 Using Fisher's t-Test of Significance

<table>
<thead>
<tr>
<th>RVP Scale</th>
<th>Test</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Factors in Curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice</td>
<td>First</td>
<td>19.8</td>
<td>7.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>20.7</td>
<td>6.9</td>
<td>0.45</td>
<td>N.S.</td>
</tr>
<tr>
<td>II. Factors in Occupational</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice</td>
<td>First</td>
<td>15.6</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>17.0</td>
<td>5.2</td>
<td>1.13</td>
<td>N.S.</td>
</tr>
<tr>
<td>III. Verbalized Strengths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Weaknesses</td>
<td>First</td>
<td>8.8</td>
<td>3.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>8.8</td>
<td>3.4</td>
<td>0.04</td>
<td>N.S.</td>
</tr>
<tr>
<td>IV. Accuracy of Self-Appraisal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>6.4</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>6.9</td>
<td>1.2</td>
<td>1.16</td>
<td>N.S.</td>
</tr>
<tr>
<td>V. Evidence for Self-Rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>3.5</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>3.1</td>
<td>1.7</td>
<td>0.75</td>
<td>N.S.</td>
</tr>
<tr>
<td>VI. Awareness of Interests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>5.6</td>
<td>3.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>6.4</td>
<td>3.0</td>
<td>1.01</td>
<td>N.S.</td>
</tr>
<tr>
<td>VII. Awareness of Values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>4.9</td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>5.6</td>
<td>3.6</td>
<td>0.76</td>
<td>N.S.</td>
</tr>
<tr>
<td>VIII. Independence of Choice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>5.4</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>5.7</td>
<td>2.1</td>
<td>0.34</td>
<td>N.S.</td>
</tr>
<tr>
<td>RVP Scale</td>
<td>Test</td>
<td>Mean</td>
<td>S.D.</td>
<td>t</td>
<td>P</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td><strong>I. Factors in Curriculum</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice</td>
<td>First</td>
<td>10.8</td>
<td>6.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>17.2</td>
<td>4.7</td>
<td>3.31</td>
<td>.001</td>
</tr>
<tr>
<td><strong>II. Factors in Occupational</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice</td>
<td>First</td>
<td>7.1</td>
<td>5.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>11.0</td>
<td>6.2</td>
<td>2.66</td>
<td>.02</td>
</tr>
<tr>
<td><strong>III. Verbalized Strengths</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Weaknesses</td>
<td>First</td>
<td>5.3</td>
<td>3.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>6.8</td>
<td>3.0</td>
<td>1.88</td>
<td>.10</td>
</tr>
<tr>
<td><strong>IV. Accuracy of</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Appraisal</td>
<td>First</td>
<td>4.7</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>4.0</td>
<td>2.5</td>
<td>0.05</td>
<td>N.S.</td>
</tr>
<tr>
<td><strong>V. Evidence for</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Rating</td>
<td>First</td>
<td>1.1</td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>1.5</td>
<td>1.3</td>
<td>1.06</td>
<td>N.S.</td>
</tr>
<tr>
<td><strong>VI. Awareness of Interests</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>2.3</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>4.2</td>
<td>2.5</td>
<td>3.34</td>
<td>.01</td>
</tr>
<tr>
<td><strong>VII. Awareness of Values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>0.9</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>2.9</td>
<td>2.4</td>
<td>3.78</td>
<td>.001</td>
</tr>
<tr>
<td><strong>VIII. Independence of</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice</td>
<td>First</td>
<td>2.6</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>4.0</td>
<td>2.1</td>
<td>2.71</td>
<td>.02</td>
</tr>
</tbody>
</table>
Interpretation of the Results

The results of the study indicate a mixed interpretation. It was apparent that the experimental sample was markedly superior to the control sample so far as their respective scores on the RVP test were concerned. It was also apparent that the experimental sample maintained its RVP Level throughout the ten months between the first and second administrations of the RVP test. The changes in RVP scores for the control sample during the ten months between administrations of the RVP test suggest that possibly their normal development had affected significant rises in their RVP Levels. Since the first RVP test was administered near the close of the school year, it seems probable that their vocational maturity has increased significantly since that time. The fact that the experimental sample's RVP Levels changed only slightly over the ten-month period leads to the further possibility that the control sample may continue to close the gap over an even more extended period of time. Tables 7 and 8 may give some clues as to the cause of these phenomena.

Tables 7 and 8 indicate that there was a relatively high correlation between various RVP scales and the ITED scores for the experimental sample and a relatively low correlation coefficient between the RVP scores and ITED scores for the control sample. All of the critical knowledge over which each student was tested was included in the vocational guidance unit. All of the classwork and homework assignments for the experimental group were graded in the same manner as are normal classwork and homework assignments. It follows, therefore, that the student's learning rate could be expected to follow its normal pattern. On the other hand, mastery of such knowledge on the part of the control group would depend, to a large degree, on many things, among which would be the
Table 6
A Comparison Between the Experimental and Control Samples on Second RVP Test Administered in March 1966 Using Fisher's t-Test of Significance

<table>
<thead>
<tr>
<th>RVP Scale</th>
<th>Group</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Factors in Curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice</td>
<td>Exp</td>
<td>20.7</td>
<td>6.9</td>
<td>2.07</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>17.2</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II Factors in Occupational</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice</td>
<td>Exp</td>
<td>17.0</td>
<td>5.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>11.0</td>
<td>6.2</td>
<td>4.07</td>
<td>.001</td>
</tr>
<tr>
<td>III Verbalized Strengths and Weaknesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exp</td>
<td>8.8</td>
<td>3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>6.8</td>
<td>3.0</td>
<td>2.38</td>
<td>.05</td>
</tr>
<tr>
<td>IV Accuracy of Self-Appraisal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exp</td>
<td>6.9</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>4.8</td>
<td>2.5</td>
<td>4.19</td>
<td>.001</td>
</tr>
<tr>
<td>V Evidence for Self-Rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exp</td>
<td>3.1</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>1.5</td>
<td>1.3</td>
<td>4.23</td>
<td>.001</td>
</tr>
<tr>
<td>VI Awareness of Interests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exp</td>
<td>6.4</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>4.2</td>
<td>2.5</td>
<td>3.00</td>
<td>.01</td>
</tr>
<tr>
<td>VII Awareness of Values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exp</td>
<td>5.6</td>
<td>3.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>2.9</td>
<td>2.4</td>
<td>3.49</td>
<td>.01</td>
</tr>
<tr>
<td>VIII Independence of Choice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exp</td>
<td>5.7</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>4.0</td>
<td>2.1</td>
<td>2.97</td>
<td>.02</td>
</tr>
</tbody>
</table>
Table 7
Correlation Coefficients Between Experimental Group's RVP Scores and ITED Scores
Second RVP Test - March 1966

<table>
<thead>
<tr>
<th>RVP Scale</th>
<th>ITED 3 ²</th>
<th>ITED 4 ³</th>
<th>ITED Comp</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Factors in Curriculum Choice</td>
<td>0.65*</td>
<td>0.67*</td>
<td>0.70*</td>
</tr>
<tr>
<td>II Factors in Occupational Choice</td>
<td>0.64*</td>
<td>0.49*</td>
<td>0.66*</td>
</tr>
<tr>
<td>III. Verbalized Strengths and Weaknesses</td>
<td>0.31**</td>
<td>0.12</td>
<td>0.13</td>
</tr>
<tr>
<td>IV. Accuracy of Self-Appraisal</td>
<td>0.21</td>
<td>0.35**</td>
<td>0.11</td>
</tr>
<tr>
<td>V. Evidence for Self-Rating</td>
<td>0.66*</td>
<td>0.69*</td>
<td>0.67*</td>
</tr>
<tr>
<td>VI. Awareness of Interests</td>
<td>0.52*</td>
<td>0.40**</td>
<td>0.58*</td>
</tr>
<tr>
<td>VII. Awareness of Values</td>
<td>0.41**</td>
<td>0.43**</td>
<td>0.53*</td>
</tr>
<tr>
<td>VIII. Independence of Choice</td>
<td>0.38**</td>
<td>0.31***</td>
<td>0.27</td>
</tr>
</tbody>
</table>

1. O'toole, 1964, pp 266-174
2. ITED 3 - Appropriateness of Expression in Language
3. Quantitative Thinking

* Significant beyond .01 level of confidence
** Significant beyond .05 level of confidence
*** Significant beyond .10 level of confidence
<table>
<thead>
<tr>
<th>RVP Scale</th>
<th>ITED 3</th>
<th>ITED 4</th>
<th>ITED Comp</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Factors in Curriculum</td>
<td>0.37</td>
<td>0.17</td>
<td>0.18</td>
</tr>
<tr>
<td>Choice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Factors in Occupational</td>
<td>0.06</td>
<td>0.24</td>
<td>0.20</td>
</tr>
<tr>
<td>Choice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Verbalized Strengths</td>
<td>-0.02</td>
<td>0.14</td>
<td>0.17</td>
</tr>
<tr>
<td>and Weaknesses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. Accuracy of</td>
<td>0.30</td>
<td>0.44</td>
<td>0.32</td>
</tr>
<tr>
<td>Self-Appraisal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Evidence for</td>
<td>0.52</td>
<td>0.42</td>
<td>0.46</td>
</tr>
<tr>
<td>Self-Rating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. Awareness of Interests</td>
<td>0.03</td>
<td>0.24</td>
<td>0.24</td>
</tr>
<tr>
<td>VII. Awareness of Values</td>
<td>0.19</td>
<td>0.24</td>
<td>0.34</td>
</tr>
<tr>
<td>VIII. Independence of</td>
<td>0.02</td>
<td>0.11</td>
<td>0.21</td>
</tr>
<tr>
<td>Choice</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. O'toole, 1964, pp 266-274
2. ITED 3 - Appropriateness of Expression in Language
3. ITED 4 - Quantitative Thinking

* Significant beyond .01 level of confidence
** Significant beyond .05 level of confidence
*** Significant beyond .10 level of confidence
pupil's desire to talk with his counselor about these things, and his  
ability to assimilate such information in that incidental manner. Therefore, it is felt that the vocational unit was the main contributor to the significant difference in correlations between experimental and control group.

Therefore it is felt that the vocational guidance unit was the main contributor to this significant difference in correlations when those of the experimental group are compared to those of the control group.

Table 8 indicates that the control sample showed relatively higher correlations between Scales IV and V respectively and their ITED scores within their own group. As noted in Table 7, these correlations are slightly higher for the experimental sample. Part of the explanation for this may be that all of the students in the high school are given their ITED results. These results are interpreted to them. Therefore they would all have been fairly well prepared to answer questions dealing with estimates of their academic abilities.

Statistical analysis of the data gathered indicated that the experimental sample achieved significantly higher RVP scores on the first administration of the RVP test than were achieved by the control sample. This superiority was attributed to the experimental sample's having participated in the formal vocational guidance unit. The experimental sample maintained its RVP level and achieved significantly higher RVP scores on the second administration of the RVP test than those achieved by the control sample although their superiority was somewhat less than on the first RVP test. The control sample improved significantly on six of the eight RVP scales. An analysis of the correlations between the respective RVP scales for the two samples and their ITED scores indicated
that the experimental group had the advantage of covering critical RVP knowledge in a formal concentrated manner whereas the control sample covered this knowledge, if at all, at their own convenience.

Tables 9 and 10 present data which support the hypothesis that the achievement levels on the respective RVP scales tend to rise and fall together for both the experimental and control samples, although Scales III and IV for the experimental sample do not show the consistency of the other scales. The most probable explanation for this is probably that there was confusion evidenced by the examinees in the areas represented by these two scales, Verbalized Strengths and Weaknesses, and Accuracy of Self-Appraisal. The tendency of the experimental sample was to confuse interests with abilities. An individual expressing an interest in a certain area tended to also assume an ability in that area, the attitude being that he could do it "if I tried." As was often the case, the actual grades and test scores did not support this contention. The comparative superiority in RVP scores shown by the experimental sample does not seem to have been able to overcome what is a general problem among high school students during the first year. That is the idea that "college prep" subjects are the only ones worthy of consideration.

This attitude on the part of students may be a reflection of the values and attitudes of society in general. Such problems will probably be encountered until people concerned with pupils' plans are able to take a positive attitude toward all programs of preparation.
### Table 9
Correlation Coefficients Among RVP Scales
Experimental Group - Second RVP Test - March 1966

<table>
<thead>
<tr>
<th>RVP Scale</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1.00</td>
<td>0.80</td>
<td>0.52</td>
<td>0.23</td>
<td>0.73</td>
<td>0.52</td>
<td>0.60</td>
<td>0.52</td>
</tr>
<tr>
<td>II</td>
<td>1.00</td>
<td>0.50</td>
<td>0.11</td>
<td>0.50</td>
<td>0.66</td>
<td>0.53</td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>1.00</td>
<td>0.01</td>
<td>0.14</td>
<td>0.24</td>
<td>0.30</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>1.00</td>
<td>0.38</td>
<td>0.28</td>
<td>0.09</td>
<td>0.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>1.00</td>
<td>0.56</td>
<td>0.40</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>1.00</td>
<td>0.38</td>
<td>0.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>1.00</td>
<td>0.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIII</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond .01 level of confidence
** Significant beyond .05 level of confidence
*** Significant beyond .10 level of confidence
### Table 10

Correlation Coefficients Among RVP Scales
Control Group – Second RVP Test – March 1966

<table>
<thead>
<tr>
<th>RVP Scale</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1.00</td>
<td>0.43**</td>
<td>0.31***</td>
<td>0.21</td>
<td>0.34***</td>
<td>0.27</td>
<td>0.38***</td>
<td>0.22</td>
</tr>
<tr>
<td>II</td>
<td>1.00</td>
<td>0.73*</td>
<td>0.34***</td>
<td>0.29</td>
<td>0.77*</td>
<td>0.49*</td>
<td>0.49*</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>1.00</td>
<td>0.46*</td>
<td>0.37**</td>
<td>0.76*</td>
<td>0.42**</td>
<td>0.45*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>1.00</td>
<td>0.71*</td>
<td>0.42**</td>
<td>0.10</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>1.00</td>
<td>0.29</td>
<td>0.35***</td>
<td>0.36***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>1.00</td>
<td>0.30***</td>
<td>0.21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>1.00</td>
<td>0.70*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIII</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond .01 level of confidence
** Significant beyond .05 level of confidence
*** Significant beyond .10 level of confidence
Conclusions

The vocational guidance unit structured around the publication, *You: Today and Tomorrow*, was found to increase the students' abilities to make more appropriate educational and vocational decisions as measured by the RVP test. This increase was found to maintain itself over an extended period of time. The publication can, therefore, accomplish what it was designed to accomplish: increase vocational maturity of students in the eighth or ninth grades. While students not participating in the unit probably do tend to close the gap between themselves and those who have had the unit, this process does take a great amount of time. During this considerable period of time, any decisions that may be made can be detrimental to the student since they may be based on faulty or incomplete information.

The unit based on *You: Today and Tomorrow* would appear to have speeded up the vocational maturation process of the experimental group by as much as a year, a very critical year in view of the types of decisions which the student must make during this stage of development. In situations where more time is available for counselors to work with individual students, such a unit might not be necessary, but where counseling loads are heavy and time for individual counseling is limited, such a unit should be helpful indeed.

Using *You: Today and Tomorrow* as the basis for the unit, an experienced classroom teacher could administer such a vocational guidance unit with a short period of preparation beforehand and a minimal amount of supervision from a credentialed counselor.
Recommendations

A formal vocational guidance unit should be presented to students in the ninth grade at this high school. The length of time devoted to this unit may vary, but should in no case be shorter than six weeks. Since a part of the second semester is normally given over to programming and scheduling, the unit should be completed just prior to this period. The concluding activity for the vocational guidance unit may also vary, but could very well be the administration of the RVP test. The teacher/counselor need not necessarily concern himself with scoring the tests since, for guidance purposes, they could possibly be scored by the students themselves. Once the students have scored their own RVP tests and plotted their own profiles, the RVP scales can be interpreted to them and their strengths and weaknesses can be indicated to each individual separately. The self-scoring would be of value in two ways. First, it would involve the student in his own evaluation in a way that would not be painful or mysterious to him. Second, it would save time for the counselor while still giving him valuable information to be used in helping his counsellees most effectively. This may be the basis for a future study comparing self-scoring to examiner-scoring of the RVP test.

Ordinarily, several days are spent interpreting the ITED results to the students. While this can be enlightening to certain students, it is often misunderstood by a large proportion of them since they tend to think of the ITED as a group of tests which they have either passed or failed. If this ITED interpretation were included in the vocational guidance unit, the test results would provide more valuable insight to the student at a time when he would feel the greatest need for it. The ITED results might then be more likely to be considered a valuable tool from which
many predictions can be made.

The ultimate goal of the vocational guidance unit herein described would in no way be to replace the relationship between the counselor and counsellee, but to facilitate it. At present, much valuable time is used by the counselor trying to uncover the student's needs. Where the student already has a well-digested knowledge at hand regarding his scholastic abilities and his educational and vocational interests and values, these hours could be used very profitably in producing valuable and accurate plans for the future.

Such a vocational guidance unit might be equally valuable at the eighth or ninth grade level. Due to the nature of the existing high school program, however, it is felt that it would be more appropriate to present the unit at the ninth grade level. The high school teacher/counselor should know as much as possible about the individual student, and would be in a position to do so if he administered both the guidance unit and the RVP test. Secondly, the student would know more about high school courses after having attended for a semester than he would while he was still in the eighth grade. It must be mentioned also that the last three years of high school are the most critical for the student so far as his post-high school plans are concerned. He still will have ample time during his last three years to prepare himself fully for whatever he may wish to do after graduation. It is primarily during his second and third years that his decisions to prepare himself in one specific direction or another will begin to close off other possibilities.

**Limitations**

There are several limitations which should be mentioned at this point. The most important involve the population sampled, the size of
the samples, the RVP test itself, the scoring of the RVP tests, and
the administration of the vocational guidance unit.

In choosing the two samples of thirty boys each, the examiner was
careful to follow proper statistical procedures for random sampling
including the use of a table of random numbers (Fisher & Yates, 1949).
Even so, the control sample did show a small degree of superiority in
their ITED scores. This difference, however, was found to have no
statistical significance so far as the study was concerned. Since the
samples chosen included only boys, it follows that any judgments made
from the statistical results of the study can be applied only to boys.
The examiner has no way of knowing at this time whether or not girls'
responses to the questions on the RVP test would have differed greatly
from boys' responses.

With regard to the RVP test, it must be acknowledged that it has
not yet been standardized on any large population. Therefore, its val-
idity and reliability remain to be proven over a long period of time.
Furthermore, this was the first time that the RVP test was used as a
pencil and paper test with groups of students. Heretofore, it had been
administered individually and orally. In defense of the study, however,
it must be noted that every effort was made to insure that each examinee
understood each question, that no pressure be felt to answer any questions
in any certain way, and that each examinee be given ample time to answer
all of the questions fully. Each individual was given full opportunity in
private to decline to participate if he so desired. So far as it could
be determined, the attitudes of the examinees were positive and helpful.
Their responses indicated an open and candid attitude throughout the RVP
test administrations.
Another important limitation involves the scoring of all of the RVP tests by the same examiner. As mentioned in Chapter III, General Methodology, a coding procedure was followed in order to prevent any examiner bias. This procedure was such that the examiner was never aware of the identity of the student whose test he was scoring except for three of the questions, numbers 20, 29 and 30. In these cases, reference had to be made to the examinee's ITED scores. This was the final step in the scoring of the tests, and since the scoring of these questions was done strictly according to the discrepancies between his answers and the information included in his ITED results, no subjective judgments from the examiner were called for.

In the scoring of all other questions on the RVP test, the examiner carefully followed the guideline laid down in Gribbons' scoring manual. In this way, it is believed that interpretation on the part of the examiner was reduced to a minimum.

The final limitation which must be mentioned is in regard to the actual administration of the vocational guidance unit. In effect, this was one administration of a vocational guidance unit to one counseling group representing one class at one high school. Naturally, the relationship between the students and their teacher/counselor can have much bearing on the degree of effectiveness of such a unit.

In spite of the limitations just mentioned, however, it is felt by the writer that the study herein concluded can be of value to the school wherein it was conducted, and also to other schools with similar problems in counseling and guidance and with similar types of students.
References


To the Examinee:

First of all, thank you very much for consenting to complete this survey questionnaire. It is hoped that the results can be used to improve the information system here at Mt. Eden. The ultimate goal of the guidance staff here is to find out what types of vocational and educational information will be of most value to our students. Your cooperation in completing this survey will be of great value in this endeavor.

Your name was chosen out of the hat to participate in this survey. The results will be strictly confidential. As a matter of fact, this questionnaire will be returned to you, if you wish, after the completion of the survey.

Be sure to answer each question as well as you can and as completely as you are able. Take your time and answer each question thoroughly, making sure that you have in mind what you wish to say. If you have any questions, your counselor may be able to help you with them. It is desired, however, that you simply give the best answer that you can with as little outside advice as possible in order that everything you say may be truly your own ideas.

It is also important that you discuss this questionnaire as little as possible with your friends until after you have finished it completely.

Again, thank you very much for helping out in this way. It is greatly appreciated.

Yours truly,

Mr. McKrell
Appendix B

Vocational Guidance Unit Used in the Study

based on

You: Today and Tomorrow

by

Martin R. Katz

Section I. The Mirror of Your Tomorrow

This first section of the unit sets the stage for the types of activities and investigations that each student will be conducting. It discusses various types of predicting done by different people and organizations and why predicting is necessary and valuable.

Section II. How to Ask the Right Questions

This section discusses the types of personal information that the individual needs to discover before he can make valid predictions about himself. Where careers are concerned, he needs to find out his own abilities, values, interests, and how each of these factors applies to different occupations.

Section III. Your Abilities

This section includes a discussion of abilities, what they are, how they can be measured, and how they can be interpreted. Students' own experiences, grades in different subjects, and test scores are included in the ways of determining abilities.

Section IV. Your Values

This section describes how life values and work values relate to one another and why they are of primary importance in determining an individual's future occupation.
Section V. Your Interests

This section relates interests to abilities and values and describes ways of determining interests.

Section VI. Occupations

In this section occupations are differentiated from jobs. Systems of classifying occupations are discussed and why such classification is useful. An occupational worksheet is included which combines all previous sections into one cohesive structure.

Section VII. Education

This section discusses education and training, and how to determine where each applies to the individual.

Section VIII. Making Choices.

In this section hypothetical young people are described and a series of questions is included requiring the students to make judgements regarding the proper choices for the different individuals described.

This unit has numerous advantages in that a comparatively small amount of outside information is necessary at any one time. The goal of the unit is to enable the individual student to deal with occupational and educational information, so the main types of information needed are test scores, records of grades, and tools for the interpretation thereof. An actual investigation of different types of occupations can be undertaken individually at the student's discretion.
Appendix C

RVP Test and Explanation of Scoring

The RVP test is composed of forty-six questions dealing with the student's high school program, the reasons for its choice, his educational and vocational plans, and his reasons for their choice. Each of his responses is given a score, ranging from 0 to 4, depending on his knowledge of his abilities, interests, values, and curricula available, and his knowledge of the different educational and vocational opportunities available and their requirements.

(The number of points possible for each of the questions will be included following each question. This was not done on the copy of the RVP test which would have been taken by the examinee.)

1. What are the different subject areas from which you can choose your own program? (2 pts)

2. What program are you planning for next year (list of subjects that you are planning for next year)? (2 pts)

3. What made you decide to take this program of subjects? (4 pts)

4. What made you decide not to take some of the other subjects which are offered? (4 pts)

5. Is there any advantage to taking college preparatory subjects? (4 pts)

6. Is there any advantage to taking subjects which are not considered college preparatory? (4 pts)

7. What required subjects are there for students who choose your program? (4 pts)

8. What made you decide whether or not to take general math, algebra, geometry or some other math course? (4 pts)

9. Is there any advantage to taking algebra, geometry, intermediate math,
or advanced math? (4 pts)

10. What facts should you know about yourself before you choose a program? (4 pts)

11. How can you predict your chances of success in different courses for next year? (3 pts)

12. How much school do you plan to get after high school? (1 pt)

13. List in order your first three choices for your possible life's work. First ___________________________
      Second ___________________________
      Third ___________________________

      (not scored)

14. Why would you like to become a ___________________________? (4 pts)
      (first choice)

15. Why would you like to become a ___________________________? (4 pts)
      (second choice)

16. Why would you like to become a ___________________________? (4 pts)
      (third choice)

17. What facts should you know about yourself before choosing an occupation? (4 pts)

18. How much education or training is required to become your first choice occupation? (2 pts)

19. What does a (an) ___________________________ do? (3)
      (first choice)

20. Is your choice of high school subjects suitable for your first choice? (4 pts)

21. Is your choice of high school subjects suitable for another occupation in case you cannot be your first choice? (4 pts)

22. What connection do you see between the subjects you'll be taking next year and the work you want to do later? (4 pts)
23. What are your strong and weak points in high school subjects? (4 pts)

24. Which abilities do you have that will help you to be successful in your program for next year? (4 pts)

25. Which ability do you lack that you feel would help you to be more successful in your program for next year? (4 pts)

26. Which abilities do you have that will help you in the work that you are planning to do someday? (4 pts)

27. Which ability do you lack that you feel would help you to be successful in your first occupational choice? (4 pts)

28. Check your position for verbal ability. (3 pts)
   1st quartile ___ 2nd Quartile ___ 3rd quartile ___ 4th quartile ___

29. Check your position for quantitative ability (math). (3 pts)
   1st quartile ___ 2nd quartile ___ 3rd quartile ___ 4th quartile ___

30. Check your position on general scholastic ability. (3 pts)
   1st quartile ___ 2nd quartile ___ 3rd quartile ___ 4th quartile ___

31. On what did you base your position for quantitative ability? (2 pts)

32. On what did you base your position for verbal ability? (2 pts)

33. On what did you base your position for general scholastic ability? (2 pts)

34. What are some of your interests? (kinds of activities you like) (3 pts)

35. What particular interests and activities would your first-choice occupation satisfy? (2 pts)

36. Mention some other interests that a person in your first-choice occupation would have. (4 pts)

37. What interests do you have that will not be satisfied by your first-choice occupation? (2 pts)
38. Mention something about your values, things that you consider of importance to you (security, money, travel, etc.). (4 pts)

39. What values of yours would your first-choice occupation satisfy? (4 pts)

40. What values of yours would not be satisfied by your first-choice occupation? (2 pts)

41. What values of yours will conflict with one another in your first-choice occupation? (2 pts)

42. How did you decide upon your choice of subjects for next year? (4 pts)

43. Where did you get your information? (4 pts)

44. How do your parents feel about your first occupational choice (2 pts)

45. Suppose your parents didn't agree with your plans. What would you do? (4 pts)

46. What do you feel should be responsible for your occupational choice? (2 pts)
Appendix D

Tally Sheet for Scoring Individual RVP Test

<table>
<thead>
<tr>
<th>Scale I</th>
<th>Scale II</th>
<th>Scale III</th>
<th>Scale IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  2</td>
<td>14.  4</td>
<td>23.  4</td>
<td>28.  3</td>
</tr>
<tr>
<td>3.  4</td>
<td>15.  4</td>
<td>24.  4</td>
<td>29.  3</td>
</tr>
<tr>
<td>4.  4</td>
<td>16.  4</td>
<td>25.  4</td>
<td>30.  3</td>
</tr>
<tr>
<td>5.  4</td>
<td>17.  4</td>
<td>26.  4</td>
<td>9</td>
</tr>
<tr>
<td>6.  4</td>
<td>18.  2</td>
<td>27.  4</td>
<td></td>
</tr>
<tr>
<td>7.  4</td>
<td>19.  3</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>8.  4</td>
<td>20.  4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.  4</td>
<td>21.  4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.  4</td>
<td>22.  4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.  3</td>
<td></td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

Scale V | Scale VI | Scale VII | Scale VIII |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>31.  2</td>
<td>34.  3</td>
<td>38.  4</td>
<td>43.  4</td>
</tr>
<tr>
<td>32.  2</td>
<td>35.  2</td>
<td>39.  4</td>
<td>44.  2</td>
</tr>
<tr>
<td>33.  2</td>
<td>36.  4</td>
<td>40.  2</td>
<td>45.  4</td>
</tr>
<tr>
<td>6</td>
<td>37.  2</td>
<td>41.  2</td>
<td>10</td>
</tr>
</tbody>
</table>

The total possible value for each question is entered beside the appropriate number, and the total possible score for each scale is indicated.
Appendix E

Distribution of Questions among the Eight RVP Scales

Scale I ............. Question 1 and 3-11
Scale II ............. Questions 14-22
Scale III ............. Questions 23-27
Scale IV ............. Questions 28-30
Scale V ............. Questions 31-33
Scale VI ............. Questions 34-37
Scale VII ............. Questions 38-41
Scale VIII ............. Questions 43-45

Questions 2, 13 and 14 were used to lead into other questions. The information gained from these responses was used to evaluate other responses. Questions 42 and 46 were not included in the final analysis.

These procedures were followed in order that the RVP Test would follow the same format as that used by Dr. Gribbons while he was developing the RVP test.