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ABSTRACT

The primary purpose of this study was to compare an experimental guidance treatment, an individual counseling treatment, and a control treatment for effectiveness in the career development of college students. In addition, comparisons were made between the two counseling treatments on the basis of the student's assessment of his counseling experience. The investigation was designed to provide answers to the following questions: (1) Are the treatments equally effective in facilitating male and female university students' career development? (2) Are the experimental guidance and individual counseling treatments equally effective in terms of student ratings? The experimental treatment utilized an independent assignment, a large group meeting, and small group counseling sessions to discuss decision making, values, interests, behavioral traits, and social influences. Results indicated that freshmen and sophomore university students participating in the experimental guidance treatment advanced further in their stage of career development than students participating in the individual counseling treatment. (Author/LAA),

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FACILITATING CAREER DEVELOPMENT THROUGH  
DECISION-MAKING: A PILOT STUDY

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Life development is <sup>viewed</sup> viewed as a process of growth and learning that proceeds through stages in a sequential order. The major developmental scheme is composed of a number of interrelated processes. Emphasis placed on understanding and facilitating these processes has caused career development to emerge as a matter of primary concern. Career development is conceptualized as being a central task in the developmental pattern of an individual. If school personnel intend to facilitate career development, it appears that they should focus attention on discovering and developing means of assisting students in growth and learning processes.

Crites (1969) suggested that guidance personnel try different experimental treatments to see which are the most effective in assisting students to develop vocationally. The primary purpose of this study was to compare an Experimental Guidance Treatment, an Individual Counseling Treatment, and a Control Treatment on the basis of facilitation of college students' career development. In addition, comparisons were made between the two counseling treatments on the basis of the student's assessment of his counseling experience. The investigation was designed to provide answers for the following basic questions.

1. Are the Experimental Guidance, Individual Counseling, and Control Treatments equally effective in facilitating male and female university students' career development, as measured by Harren's (1964) Vocational Decision Checklist?

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2. Are the Experimental Guidance and Individual Counseling treatments equally effective in terms of student's ratings, as measured by a Counseling Assessment form?

#### Treatments

Students participating in this investigation were assigned to one of the following treatment groups.

1. Experimental Guidance Treatment. Students (n=22) assigned to the Experimental Group were involved in a special program for a five week duration. Different topics were presented each week of the career guidance program. Bross's (1953) decision-making strategy was presented during the first week. The remaining four weeks consisted of the students applying the strategy to specific correlates of career choice.
2. Individual Counseling Treatment. Students (n=22) assigned to the Individual Counseling Group received vocational-educational counseling on an individual basis. They were assigned to one of the four vocational-educational counselors participating in the investigation. Individual counselors conducted their counseling sessions with these students in a manner similar to that used with students not involved in the investigation. Duration of counseling sessions depended upon the needs of the students.
3. Control Treatment. Students (n=22) assigned to the Control Group received no formal vocational-educational counseling during the five week period of time when the other treatments were in effect. The Control Treatment was used to determine if career development was facilitated either by independent student work or by the mere passage of time.

### Selection of Sample

Harren's (1964) Vocational Decision Checklist was used as a screening device for including certain freshman and sophomore university students in this investigation. The Checklist, corresponding to Tiedeman and O'Hara's (1963) theory of vocational development, includes the following stage score ranges: exploration, 10-30; crystallization, 30-50; choice, 50-70; and clarification, 70-80. Only students scoring below an arbitrary cutoff score of forty-one on the Total Scale (Major and Occupational Subscales combined) of the Checklist were selected to participate in this investigation. The score, forty-one, representing the midpoint of the crystallization stage, was chosen for two reasons. First, a score point was needed that would provide a sample large enough for experimental purposes. Second, a score point was needed that would provide a sample of students who had not reached final decisions concerning academic majors or occupations. The midpoint of the crystallization stage seemed to answer both criteria. Further, it appeared that students in the lower stages of career development would benefit more from a program of the type used in this investigation than would students in the more advanced career developmental stages. Yet another reason for selecting such students was that they will be required to make a number of important decisions in the next few years. Decisions concerning not only a college major, but also decisions about many other personal items will have to be made. Learning to use a decision-making strategy would seem to be of considerable value to this, as well as other populations.

The subjects participating in this investigation were drawn from two sources. Source number one included students who reported to the vocational-educational counseling extension of the University's Counseling and Testing

Center, seeking assistance with an educational or career problem. Source number two consisted of students who reported to the vocational-educational extension as a result of hearing about the Experimental Guidance Program.

Each Treatment Group contained fourteen volunteer students and ten walk-in students. Since there was a larger turnout of males than females, thirteen males and eleven females were assigned to each group. Two students, one male and one female, withdrew from the Experimental Guidance Group during the first week of the program. In order to keep an equal number of males and females in each group, one male and one female were selected at random and dropped from the other two groups. At the conclusion of the study, each group consisted of twelve males and ten females.

#### Instrumentation

The primary instrument used for measurement of career development was designed by Harren (1964). The Checklist was developed to provide a measure of an individual's stage of career development. The instrument has been devised to place college students into one of four stages of development toward a major choice and an occupational choice. The four stages are exploration, crystallization, choice, and clarification. The Experimental Guidance, Individual Counseling, and Control Groups were tested with Harren's (1964) Checklist prior to the five week treatment period. They were administered a post-test with the same instrument following the treatment period. Differences between pre-and post-test scores were taken on the Major, Occupation, and Total Scales of the Vocational Decision Checklist. The pre-test scores were subtracted from the post-test scores to obtain a change score for each student in the treatment groups.

A second instrument used for evaluation was designed to measure the student's assessment of his counseling treatment. Only members of the Experimental Guidance and Individual Counseling Groups completed this evaluation. Since the Control Group received no formal counseling, assessment of counseling was inappropriate. The instrument was composed of two parts, each of which contained the same ten statements. These statements represented ten dimensions of vocational-educational counseling. Part one of the instrument asked the student to rate on a scale the extent to which each of the items listed were covered in their counseling experience. The scale was graduated from a low of "not covered at all" to a high of "covered extensively." Part two was concerned with the extent to which the student felt the counseling experience was helpful in these same areas. Items were rated on a scale from a low of "worse than no help" to a high of "extremely helpful."

#### Experimental Guidance Treatment Procedures

With the exception of the final week, each week of the five week program consisted of three activities dealing with the topic being presented. Activities included: an independent assignment; a large group meeting; and a small group counseling session. These activities are described in the following paragraphs.

1. The first activity was an independent assignment requiring the student to listen to an audio-taped introduction and explanation of the weekly topic. Each student included in the Experimental Guidance Treatment was responsible for listening to the tape at his own convenience, but prior to his large group meeting. The average length of time for the audio-tapes was approximately

twenty minutes. Music was provided as a background for the tapes to help prevent monotony. Checks were made by the investigator to insure that each student listened to each tape.

2. The second activity was a large group meeting. Meetings varied slightly depending upon the weekly topic. It was necessary to hold meetings at three separate times because of scheduling conflicts with students' classes. These groups ranged in size from five to ten students. Various activities such as observing a model tape, interpreting interest survey results, and seeking occupational information were presented. Time was provided during these meetings for applying the decision-making strategy to the career choice correlates. The investigator was responsible for conducting the large group meetings.
3. The third activity of each week was a small group counseling session. Students were arbitrarily divided into four groups. Assignments were made as randomly as possible; however, the schedules of both students and counselors had to be considered. Small group sessions were led by the same counselors used in the Individual Counseling Treatment. Each of the four counselors met with a group of students for one hour per week for five consecutive weeks. Prior to the first small group meeting, the students were shown a video-taped model of a small group counseling session. They were also given an explanation of the roles they and their counselors would be expected to fill during small group meetings. Counselors were responsible for establishing an atmosphere in which the student felt free to actively participate in the group discussions.

The investigator met with the individual counselors each week prior to their meeting with the small groups. Instructions concerning the activities for the week were given to the counselors at that time.

First Week Topic: Decision-Making

1. Independent assignment. An audio-taped introduction and explanation of Bross's (1953) decision-making strategy was made available at the vocational-educational counseling extension. The tape explained: (a) the importance of learning to make decisions, (b) the steps involved in decision-making, (c) the application of the strategy, and (d) the questions to ask when applying the strategy. A handout listing the steps in decision-making and the questions that should be considered when making a decision was given to each student. In addition, the students were required to complete the Kuder DD Occupational Interest Survey during the early part of the first week. Early completion of the Kuder was necessary, because two weeks were required for machine scoring and profiling student responses.

2. Large group meeting. During the large group meeting, the investigator required the students to list the five questions that should be answered when solving a problem using the decision-making strategy. Students were asked to list these questions on paper and to return them to the investigator. Those failing to list each question received special assistance following the dismissal of the other group members. A video-tape model of a small group counseling session on decision-making was shown during the last part of the large group meeting. The model demonstrated an effective group interaction session. Students in the video-tape model accepted responsibility



for the group's effectiveness and freely participated in discussions. Roles of the group leader and group members were explained to eliminate doubts and increase the group's effectiveness.

3. Small group counseling session. The group leaders introduced the topic of decision-making and reviewed the major factors that should be considered. The students were reminded of their roles in the group and their responsibility for making it a success. Each counselor was responsible for maintaining time and topic boundaries. Discussions centered on the use of the decision-making strategy in deciding on a college major and on a career. The latter part of the small group session was spent evaluating the week's accomplishments.

Second Week Topic: Values

1. Independent assignment. An audio-taped introduction discussing the relationship between personal values and career development was presented. The importance of considering values when deciding upon a career was the main concern. Values such as income, security, independence, and prestige were considered in relation to career involvement. An example was provided which described an individual applying the decision-making strategy to determine the level of income he considered appropriate for meeting his needs.

2. Large group meeting. The investigator assisted each student in becoming familiar with the materials on careers and majors. Students were shown how to use the film strips, audio-tapes, occupational files, and the other occupational materials. An assignment was made which required the students to use the career information resources available. They selected three occupations and completed a Career Values form for each one.

3. Small group counseling session. Discussions centered on the role that values play in selecting a career. The students presented the information they had obtained from completing the Career Values forms. Some of the problems that were encountered when completing the forms were discussed by the group. Counselors used reinforcement techniques to encourage student participation in the group discussions. The session concluded with an evaluation of the week's activities.

Third Week Topic: Interests

1. Individual assignment. An audio-taped introduction of interests as they relate to vocational choice was presented. The taped presentation discussed the importance of selecting a career compatible with a person's expressed and measured interests. Holland's (1959) six career orientations and the main interests of people in these careers were explained. Ways of developing interests were suggested along with recommendations for gaining knowledge about occupations.

2. Large group meeting. The large group meeting began with the distribution of the Kuder DD Occupational Interest Survey results. Instructions were provided concerning the procedures to follow in interpreting the results. The investigator answered questions of students having difficulty understanding their interpretive folders. The students were instructed to study the folders carefully prior to their small group counseling session later that week.

3. Small group counseling session. Additional help in interpreting the results was provided by the small group leaders. Discussions centered on how the information obtained from the interest survey could best be put

to use. Included were ways of applying the decision-making strategy to the study of interests. Group interaction among members was encouraged by the leader. Accomplishments for the week were examined prior to the group's conclusion.

Fourth Week Topic: Behavioral Traits

1. Independent assignment. An audio-taped introduction of the role that an individual's behavioral traits play in his career process was presented. The tape discussed how habits, attitudes, maturity, emotional stability, and other personal elements effect a person's satisfaction with his career choice. In addition, the students completed the California Life Goals profile which provides indications of conditions or goals which may exert influences in the future for considering occupations, career activities, or leisure pursuits.

2. Large group meeting. Students were given a handout similar to the one designed by Smith (1959) which required them to consider a number of personal traits. They were instructed to consider each of the traits and check either positive, negative, or average. These items were to be marked in accordance with how the students saw that characteristic as affecting their career choice. Students considered each trait in reference to several of the occupational fields in which they expressed interest.

3. Small group counseling session. The small group leaders distributed the California Life Goals personal profiles to the students. They assisted students in interpreting the form's results. Discussions centered on how the student's behavioral traits and his personal profile might affect his career choice. Part of the session was spent attempting to

relate the information included on the California Life Goals personal profile with the student's expressed and measured interests.

Fifth Week Topic: Social Influences

1. Independent assignment. An audio-taped introduction of the relationship between various social influences and career development was presented. The importance of being aware of the pressures exerted by the student's family and society in general was discussed. Emphasis was placed upon the necessity to adjust to other people. A review of the previous weekly topics was included in the tape. The decision-making strategy was discussed again in detail, and the students were encouraged to use it.

2. Large group meeting. No large group meeting was held during the fifth week. Instead, the students were encouraged to spend that time attempting to tie together as much of the gathered information as possible. The counselors and the investigator assisted students needing help on this assignment.

3. Small group counseling session. Discussions centered on the role that social influences play in vocational development. The small group concluded with a discussion concerning the value of the Experimental Guidance Program. After the discussions, the students completed the Vocational Decision Checklist (Harren, 1964) and the Counseling Assessment form.

Results

1. Statistically significant<sup>1</sup> differences were found to exist between the two Counseling Treatment Groups with regard to change score on the Major

<sup>1</sup>An alpha level of .01 was selected as the level of significance to be used in the analysis.

Subscale, the Occupation Subscale, and the Total Scale of the Vocational Decision Checklist. The mean change score obtained by members of the Experimental Guidance Group was greater than the mean change score obtained by members of the Individual Counseling Group on all three scales.

2. Statistically significant differences were found to exist between both Counseling Treatment Groups and the Control Group with regard to change score on the Major Subscale, the Occupation Subscale, and the Total Scale of the Vocational Decision Checklist. The mean change score obtained by members of both the Experimental Guidance and Individual Counseling Groups were greater than the mean change score obtained by members of the Control Group.

3. No statistically significant differences were found to exist between counselee's ratings of the Experimental Guidance Group and the Individual Counseling Group as measured by the Counseling Assessment Form. A detailed description of the research questions, regression models, and statistical analysis used in the investigation was reported by Smith (1971).

### Conclusions

Freshmen and sophomore university students participating in the Experimental Guidance Treatment, as defined and employed in this investigation, advanced farther in career developmental stage than students participating in the Individual Counseling Treatment. This greater advancement occurred on the Major Subscale, the Occupation Subscale, and the Total Scale of the Vocational Decision Checklist. It is suggested, therefore, that for students similar to those included in the present investigation, a counseling program such as the Experimental Guidance Program may be more

effective than individual counseling for the expressed purpose of advancing students in their stage of career development.

There are several factors which may have accounted for the larger change scores obtained by members of the Experimental Guidance Group.

First, students in the Experimental Guidance Group were required to complete a number of assigned tasks. These tasks were assigned and followed-up by the investigator to insure that every student completed all requirements. Each student did, in fact, complete all of the assigned tasks. Although counselors in the Individual Counseling Group encouraged use of decision-making techniques, no formal assignment of counselee activities or detailed review of activities completed (e.g. occupational information seeking) was apparent. It appears that intervention in the student's activities did increase the amount of student participation in counseling activities. Several students indicated in their evaluations of the Experimental Guidance Program that the required activities had helped to motivate them.

Second, a considerable amount of attention was placed on Bross's (1953) decision-making strategy. In addition to spending the first week on the topic, it was applied by the students during each of the remaining weeks. Each student was able to list the steps in decision-making, and they were assisted in working through alternatives by applying the strategy. It is probably that a considerably larger amount of time was spent on applying decision-making techniques by members of the Experimental Guidance Group than by members of the Individual Counseling Group. It appears that application of decision-making techniques such as establishing academic major and occupational alternatives, examining the consequences of alternatives, and applying value and experimental considerations

to alternatives assisted Experimental Guidance Group students in moving into more advanced stages of career development as measured by Harren's (1964) Checklist.

Third, the small group counseling sessions provided the students with an opportunity to interact with other persons with similar and dissimilar interests. It afforded them a chance to benefit from the activities and experiences of their peers. It appears that the experiences of others may have helped them to make some negative choices, and thus, narrowed the range of possible alternatives. Perhaps, just the awareness that others share their anxieties and doubts about the future may have helped. A number of students suggested that the small groups be extended from one to two hours to allow for more interaction.

Results of the comparison of the Experimental Guidance and Individual Counseling Treatments with the Control treatment were also significant. It appears that students participating in the Experimental Guidance and Individual Counseling Treatments, as defined and employed in this investigation, advanced farther in career developmental stage than students participating in the Control Treatment. Advancement was greater on the Major Subscale, the Occupation Subscale, and the Total Scale of the Vocational Decision Checklist. Based on these findings, it is suggested that, within the limits of the study itself, both the Experimental Guidance and Individual Counseling Treatments appeared to be more effective than the Control Treatment for the expressed purpose of advancing students in their stage of career development.

Certain factors were listed previously as possibly accounting for the differences between the Experimental Guidance Group and the Individual Counseling Group. Logically, it seems that these same factors would apply when accounting for the differences between the Experimental Guidance Group and the Control Group. The factors included were: assignment and completion of tasks; considerations in decision-making; application of a decision-making strategy; and participating in group activities.

Other factors need to be considered when attempting to account for differences between the Individual Counseling Group and the Control Group. It has been suggested that the individual counselors did not consider certain areas to the same extent as did the Experimental Program. However, it is apparent that the counselors did use a number of activities to assist students in vocational development. These activities included; assigning and interpreting tests; discussing decision-making; partial intervention in student activities; and providing individual attention. It seems reasonable to assume that these factors would account for the difference between the Individual Counseling Group and the Control Group.

In summary, the Control Treatment used in this investigation was employed to determine if career development was facilitated either by unidentified, independent student work or by the mere passage of time. It appears that for students operating within the time limits and other characteristics unique to this study, unidentified independent work and the mere passage of time does not facilitate career development as measured by the Vocational Decision Checklist.

Comparisons were made between student assessments of the Experimental Guidance Treatment and the Individual Counseling Treatment on the basis of a Counseling Assessment Form. No differences appeared to exist between



the students' assessments of the Experimental Guidance and Individual Counseling Treatments. It is suggested, therefore, that the students seemed to feel that both counseling treatments were beneficial. The implication is that students seem to approve of nearly any helpful counseling service although some services may be more helpful than others in terms of measured career development.

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TABLE 1

Means and Standard Deviations of Pre- and Post-Treatment Scores on Major Subscale, Occupation Subscale and Total Scale of the Vocational Decision Checklist Obtained by Members of the Three Treatment Groups

Item	Experimental Guidance Group n=22	Individual Counseling Group n=22	Control Group n=22
Pre-Treatment Major Subscale	$\bar{X}$ 15.42 SD 2.46	$\bar{X}$ 16.00 SD 2.71	$\bar{X}$ 15.45 SD 1.67
Post-Treatment Major Subscale	$\bar{X}$ 24.48 SD 4.34	$\bar{X}$ 22.42 SD 4.53	$\bar{X}$ 16.83 SD 2.55
Pre-Treatment Occupation Subscale	$\bar{X}$ 15.93 SD 2.25	$\bar{X}$ 17.20 SD 2.15	$\bar{X}$ 16.12 SD 1.94
Post-Treatment Occupation Subscale	$\bar{X}$ 24.65 SD 3.16	$\bar{X}$ 22.39 SD 3.94	$\bar{X}$ 16.67 SD 2.33
Pre-Treatment Total Scale	$\bar{X}$ 31.35 SD 3.90	$\bar{X}$ 33.20 SD 4.27	$\bar{X}$ 31.57 SD 2.69
Post-Treatment Total Scale	$\bar{X}$ 49.13 SD 8.28	$\bar{X}$ 44.81 SD 7.87	$\bar{X}$ 33.50 SD 4.40

TABLE 2  
Means and Standard Deviations of Counseling Assessment Scores Obtained by  
Members of Counseling Treatment Groups

Item	Experimental Guidance Group n=22	Individual Counseling Group n=22
Counseling Assessment Part 1 Score	$\bar{X}$ 37.86 SD 4.98	$\bar{X}$ 36.32 SD 7.31
Counseling Assessment Part 2 Score	$\bar{X}$ 37.22 SD 5.77	$\bar{X}$ 35.50 SD 6.58