DOCUMENT RESUME

ED 105 916 JC 750 309

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TITLE A Comparative Study of Two Methods of Freshman Orientation.
NOTE 16p.

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS Analysis of Variance; *College Freshmen; Data Analysis; *Junior Colleges; Junior College Students; Lecture; *Orientation; Orientation Materials; *Programed Instruction; Teaching Methods
IDENTIFIERS Mississippi

ABSTRACT

Since studies show that students who have an orientation to college perform better than those who do not, this study at Mississippi Gulf Coast Junior College sought to improve the freshman orientation program by determining whether a programmed method of orientation would be more effective than the existing lecture method. To test the hypothesis that students using programmed instruction would score higher on a criterion-based orientation test than those receiving the same material in a conventional classroom setting, 102 students were randomly assigned to one of three treatment groups: one receiving conventional orientation, one receiving the programmed orientation, and one without treatment. The statistical evidence gained through a one-way analysis of variance of post-test scores supported the hypothesis at the .01 level of significance. In subsequent use, while continuing to produce higher scores on objective tests, the programmed orientation has proven more versatile than the lecture method, especially in the case of late-entering students. Because it is easy to use and flexible, the programmed orientation is adaptable to an open enrollment situation. Brief reviews of the literature on freshman orientation and programmed instruction are included. (RL)

A COMPARATIVE STUDY OF TWO METHODS OF FRESHMAN ORIENTATION

by

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INTRODUCTION

An examination of numerous college catalogs or bulletins establishes the fact that most, if not all, institutions of higher learning have some form of freshman orientation. Some institutions give course credit for orientation classes[1] while some only give lip service that credit will be granted.[2] Regardless of credit or not it is probable that each school endeavors to improve the orientation program from year to year. The entering freshman is confronted with a new setting and many terms that too often go over his head or are lost in the mutiplicity of new things to which he is expected to adjust.

The purpose of this study was to develop a more effective way to orient entering freshmen. Specifically, the objective of the study was to compare a lecture method of orientation to a programmed method of orientation in those areas where this was possible.

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[1]Edward M. Carter, and Happock, Robert, "College Courses in Careers 1952." Personnel Guidance Journal 31: 315-318; 1953.

[2]G. Bookman, "Freshman Orientation Techniques in Colleges and Universities." Occupations 27: 163-166; 1948.

REVIEW OF LITERATURE

The search of literature reveals the truth of a comment by W. L. Lifton[3] that there is a need to evaluate what is happening to see if it is worthwhile. This seems to be the trend for in the literature reviewed much of it dealt with efforts to change or modify existing methods of freshman orientation.

It is readily apparent that there can be no one method or format for freshman orientation because ".... each college campus has a unique climate ... . freshman orientation is an introducation to a specific college climate...."[4] It is readily recognized that the above statement is unquestionable. Any school must design its freshman orientation to meet its own needs. There are some guidelines which may be laid down, but content will vary from situation to situation.

The need to tailor the orientation is further noted when it is seen that a wide variety of programs exist that may consume one day or a full academic year.[5] No doubt the types of programs and material covered are equally as varied. The amount of credit given for orientation also indicates some wide differences. Credit varies from no credit at all to as much as 3 degree credits in some instances.[6]

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[3]W. L. Lifton, Colleges and Universities - Student Services. In C. W. Harris (Ed.), Encyclopedia of Educational Research. (3rd ed.) pp. 300-306.

[4]Robert J. Kopecek, "Freshman Orientation Programs: A Comparison." Journal of College Student Personnel, 12: 54-57; 1971.

[5]Esther Kronovet, "Current Practices in Freshman Orientation." Improving College and University Teaching, 17: p. 204.

[6]Kronovet, op. cit., p 205.

In spite of the widespread variances in programs and credit allowed, most institutions appear to feel that some kind of orientation is necessary. In the study by Kronovet,[7] mentioned above, a survey was conducted to determine what practices were being carried out by institutions. Of the institutions responding 92.4% had some type of freshman orientation.

Some institutions look upon orientation as a social relationship and others see it as an academic orientation. Some see it as a combination of the two. One school felt it necessary to change the image of their orientation from that of a social to an academic setting. This was attempted on a one day orientation program. There was a general assembly of students, parents, and faculty in which introductory remarks were made. Later in the day there were small group meetings of parents and students with faculty advisors. A follow-up questionnaire revealed that most parents and students viewed this orientation as academic in nature.[8]

While it seems apparent that most institutional leaders feel that orientation is a necessity, one study attempted to determine how the student felt. An attitude survey was administered to an entering freshman class after the class had experienced an orientation. Most of those surveyed felt that some information was necessary, but they generally viewed the formal classroom setting negatively.[9]

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[7]Kronvet, op. cit., p. 204

[8]C. Dean Miller and Allen E. Ivey, "Student Response to Three Types of Orientation Programs", Personnel and Guidance Journal, 45: 1025-1029, June, 1967.

[9]Sterling K. Gerber, "Four Approaches to Freshman Orientation", Improving College and University Teaching, 18: 57-60, 1970.

Another finding in the above study was that knowledge gained in the orientation program stimulated students to seek more counseling.[10] This seems to indicate the postive side of an orientation program.

None of the articles examined approached the classroom setting as did this study. The many variations in program intent and conduct did not use programmed material. That some kind of orientation is needed does appear to have been firmly established.

The other facet of this experiment required some examination of the literature pertaining to programmed instruction (PI). Since this was the major difference between the orientation programs examined and the one conducted, emphasis needs to be placed here.

The generally accepted father of PI is B. F. Skinner and his work in the "The Science of Learning and the Art of Teaching."[11] Because of this work attention really came to be focused on what is known today as programmed instruction.

Since Skinner's work there have been numerous studies and articles dealing with many uses of PI. A rather large number have done what this study did, but not with the same material nor in the same area. These studies have compared the amount learned from a PI presentation to the amount learned in a conventional classroom setting of the same material.

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[10] Ibid.

[11] B. F. Skinner, "Science of Learning and the Art of Teaching", Harvard Educational Review, 24:86-97.

One study may be used as an example of the many studies that were basically the same and is much like the study that was undertaken.

A study was made to determine if it would be justifiable to develop more programs of the kind used in the experiment. In this particular study there was an effort to develop a science instruction system that would be more effective than the existent system. The existent system was a large group in a laboratory/lecture approach. To be compared was a small group/ programmed instruction approach. The findings of this study showed the systems approach to be more effective than the conventional approach.[12]

Several other studies were examined that followed similiar formats and proved the same thing. These may be summarized in a statement by Stolurow[13] in the Encyclopedia of Educational Research, 4th ed. (1969).

> "Research on PI leaves no doubt that students who use it learn. They learn from adunctive, linear, mathetic (Bilbert, 1962), branched, intrinsic, and idiomorphic programming. They learn when materials are in book and machine form. Many different kinds of learners have not only learned, but also like programs. With PI, students have learned the gamut of school subjects from algebra to Zoology plus a variety of college military and business courses and skills."

R. J. Shavelson and M. R. Munger, "Individualized Instruction: A Systems Approach", Journal of Educational Review, 63: 263-268.

Lawrence M. Stolurow, "Programmed Instruction", Encyclopedia of Educational Research, ed. Robert L. Ebel (4th ed.; New York: Macmillan, 1969), p. 1016.

HYPOTHESIS

Students using programmed instruction will score higher on a criterion based test than will students receiving the same material in the conventional classroom setting.

RATIONALE

As has been mentioned above, the large number of studies showing the advantage of programmed learning gave rise to the hypothesis that the same would prove true in the classroom setting of orientation briefings. Shavelson and Munger (1970)[14] established the fact that the development of more forms of programmed material was both financially feasible and desireable. Since it seemed quite apparent that programmed approaches of virtually any nature cause learning, the study was conducted.

OPERATIONAL DEFINITIONS OF THE VARIABLES

The use of individualized printed material in package form constituted the programmed material.

The conventional approach was that of the typical classroom, teacher,led lecture.

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[14]Shavelson and Munger, Loc cit.

SIGNIFICANCE OF THE STUDY

The reasoning behind freshman orientation of any kind is that the student who knows his environment and his way around will tend to achieve more readily and efficiently. Studies by Irwin,[15] Kamm,[16] and Goodrich[17] indicate that students generally perform better and make better grades after having been oriented than do those who have no orientation. The use of programmed material would increase the knowledge gained by the freshman and should enhance his chances of achieving higher grades. He could progress with more confidence through the academic setting.

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[15]Charles E. Irwin, "Evaluation a Training Program in Listening for College Freshmen", Scholastic Review, 61: 25-29.

[16]Robert B. Kamm, "Personalizing the College Experience", Scholastic Society, 72: 263-265.

[17]Thomas A. Goodrich, "Gains in Self Understanding Through Pre-College Clinics", Personnel Guidance Journal, 31: 433-438.

METHOD

SUBJECTS

The subjects were one hundred two entering college freshmen in a small Gulf Coast Junior College. All the subjects were enrolled in full-time academic or technical programs. The student population is primarily drawn from the middle and lower middle class families. The school has an "open door" policy and some students are not typical. Since all entering freshmen must undergo orientation as a part of the admissions procedure, there were no volunteers.

THE TASK

The program content was the same for both groups. The content consists of various bits of information pertaining to college life on this Campus. One form of the content was delivered verbally by a well versed instructor in a typical classroom setting. The other form of content was given as individual packages and contained the same material as the verbal form. Each group was given the same form of a multiple choice test. One group was the control group and did not receive a treatment. They were given the same test.

INDEPENDENT VARIABLES

1. Traditional classroom lecture. The material presented was information pertaining to the particular college setting. Specifically the content covered a thorough discussion of the various kinds of financial aid that is available to help students pay for their education. In addition there was a discussion of the semester hour, how it is measured and used as a measure of college work completed, and the number required to graduate from the above junior college. It also covered the number of hours that constituted a regular or normal class load for students in the semester system. Quality points based on the four point system were explained and the grade point average demonstrated. The minimum grade point average for graduation was also covered. The three areas of study provided by the junior college were distinguished; academic or college parallel, technical or terminal courses, and vocational or short term skill programs.

2. Programmed or individualized instruction. This presentation covered the same material as in the first variable, but it was presented in three major sections of printed material. The three sections covered the same three as the above; (1) financial aid; (2) types of programs offered; and (3) the semester hour, quality point system. Within each major section there were subdivisions for simplicity in handling at the end of each section there were review questions taken from the immediately preceding sections The printed material could be used during the review period.

DEPENDENT VARIABLE

The dependent variable, level of learning attained as a result of completing one of the two types of instruction listed as independent variables, was measured by means of a criterion based paper-and-pencil achievement test. The test was made by taking questions from the content material that was covered in both methods of presentation. The test was four pages in length and dealt directly with the areas covered. Forty mulitple-choice type questions were used and each required one response yielding a score range from 1 to 40. Ten minutes was the approximate time necessary to complete this test. The scores were compared to measure the highest achievement.

PROCEDURES

The subjects' names were randomly selected using a table of random numbers. They were all freshman applicants for the fall semester. Each of three groups were then randomly assigned subjects using the same table and the groups were randomly selected for the various treatments. Each group had thirty four subjects assigned to it. The administrators of the treatments were randomly selected and assigned to a group.

Since orientation is a compulsory part of admissions, the subjects were told to report to a pre-determined classroom at a given hour. The pre-treatment briefing explained that the purpose of the meeting was to instruct them in some important aspects of college life and attempt to measure their understanding of the material. Names were placed on answer sheets since this is a part of the regular orientation process.

Group one listened to the traditional lecture presenting the material to be covered during that part of the orientation. After hearing the material and being allowed to ask questions, the subjects were then given the post-test for this section. The whole process of lecture and testing required about forty-five minutes.

The second group was given a previously prepared programmed packet of the same material as that which was covered in the lecture presentation. The self-pace material was read and the practice questions reviewed. Following this the packets were collected and the post-test distributed. It was found that this section was completed in approximately fifty minutes.

The third group was the control group and received only the post-test. The rationale in the briefing to this group led them to believe this was to determine how much was known of the material to be covered before they received the orientation. They were later given the orientation material in the packaged form.

DATA ANALYSIS

The hypothesis was tested statistically by use of a one-way analysis of variance.

RESULTS

The results were as expected. The statistical evidence of the analysis of variance showed a significant difference between the progammed orientation and the traditional lecture approach to orientation. The hypothesis is there supported at the .01 level of significance as seen in Table 1.

TABLE 1

ANALYSIS OF VARIANCE

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate
Between	28726.95	2	14363.48 = Sb^2
Within	11030.65	99	11.42 = Sw^2
Total	39757.6	101	F = 128.91

$$F = \frac{SB^2}{Sw^2} = 128.91$$

DISCUSSION

This experiment proved the hypothesis that a programmed orientation was more effective than the traditional lecture orientation as measured by a criterion based multiple choice, paper and pencil test. The difference was highly significant at the .01 level and further experiments have continued to support the hypothesis. In addition to the higher level of performance on tests, the programmed orientation has proven to be far more versatile than the lecture. The programmed material has been used all this summer (except for those experimental sessions mentioned above) and is highly useful in the cases of late entering students.

There is some revision that appears to be needed and all of the data are being compiled with this in mind. The program has proven so effective that it is to be expanded to incorporate a more thorough orientation to the Campus on which it has been used. The same effectiveness is expected at mid-term for entering students who have here-to-fore been entirely overlooked in the orientation process. It is hoped that, once the whole program is complete, it will be adopted by the entire three campus college. It is easy to use, can be given to a late enrollee, and would be quite adaptable to an open enrollment situation.

In spite of some weaknesses and some need for minor revision, it has proven to be the most beneficial and useful method or orientation ever attempted at the Campus were it was employed.