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By-Colmey, James W.
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The West Tennessee Research Development Consortium, formed to increase the potentiality of research in two small West Tennessee Colleges, consists of a project designed to train in research methodology one research person on each of the two campuses, and to offer concurrently an inservice training program to eight faculty members in each of the two colleges. The program for the two individual researchers consisted of a practicum including (1) participation in the development of curriculum packages designed to upgrade instructional processes at the higher education level (one treatment designed to improve the lecture technique of instruction, the other to improve and increase skills in the use of the discussion method); and (2) assistance in administering seminars held every other week on each campus to test the effects of the curriculum packages on the eight faculty members. Faculty receiving the experimental instruction were evaluated using the Purdue Rating Scale for Instruction and the Stanford Teacher Competence Appraisal Guide as pre- and posttests. No significant changes were recorded in their classroom behavior, but their increased interest and knowledge of current developments in classroom methodology led to the recommendation that the program be continued with proposed treatments in film and TV methods, test construction, curriculum organization, and instructional objectives. (Included are the session outlines on lecture and discussion methods.) (JS)

FINAL REPORT

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# WEST TENNESSEE RESEARCH DEVELOPMENT CONSORTIUM

Dr. James W. Colmey

Memphis State University

Memphis, Tennessee 38111

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
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TABLE OF CONTENTS

LIST OF TABLES

List of Tables Continued

West Tennessee Research Development Consortium


## SUMMARY

The West Tennessee Research Development Consortium was formed to increase the potentiality of research in two small West Tennessee colleges. Small colleges, especially those in the South, are unable to compete with larger universities for needed research personnel. The absence of such research experts limits the extent to which these colleges can participate in the solving of local community problems, can evaluate and study the production of the college, and can enter into the generation of new knowledge.

The West Tennessee Research Development Consortium consists of a proposal and project designed (1) to train in research methodology one research person on each of two college campuses (whose student bodies average 800), and (2) to offer concurrently an in-service training program to eight faculty members in each of these two colleges. This research training program for the individual researcher at each college consisted of the practicum training of personnel and the completion of the text by Fred Kerlinger, Foundations of Behavioral Research. In addition to this training, the proposal provided funds and a bibliography through which the researcher at each small college could begin to build a professional library on educational research.

The in-service training program for the eight faculty members sought to try out a series of instructional materials designed to upgrade teaching in the higher education level in reference to a particular topic interest. One of the treatments was centered around the improvement of the lecture technique of instruction; another was designed to improve and increase skills in the use of the discussion method in the higher education classroom.

The research development program sought to achieve the following objectives: (1) to develop or advance research competencies in selected personnel on the campuses of the two cooperating colleges through the conduct of a cooperative research venture; (2) to study the treatment effects of curriculum packages designed to upgrade the instructional processes in higher education; (3) to expose the staffs of each of these colleges to the opportunity to observe and participate in an on-going research project while gaining the benefits of an in-service training experience; and (4) to demonstrate the importance of research as a discipline or an instructional method, or as a decision-making instrument, to these two developing institutions.

A two-hour faculty seminar was held every other week at each campus during which the experimental treatments were discussed. The

researchers at the university provided valuable assistance in the administration and development of the curriculum packets and interacted with two consultants specifically hired to help develop the curriculum packets. The group of eight faculty personnel on each campus who received experimental instruction were evaluated through the utilization of two rating instruments by their classes.[1] Using 0 for the criteria assessment and $T_1$ for the treatment the general design over the year was the following:

| | Semester 1 | | | Semester 2 | | |
|---|---|---|---|---|---|---|
| GROUP 1 | 0 | $T_1$ | 0 | 0 | $T_2$ | 0 |
| GROUP 2 | 0 | $T_2$ | 0 | 0 | $T_1$ | 0 |

The instructional processes instructor from Memphis State University administered each of the treatments and coordinated the overall instruction program. An additional research instructor from the university conferred with the two researchers and taught the research methodology.

Generally, the results of the in-service training program were rather disappointing.[2] No significant changes were recorded over either of the two rating instruments even though trends toward improvement were shown on a rather inconsistent basis in individual items on the instruments. The lack of significance over the two instructional treatments which were used on an AB-BA design possibly could have resulted from an inadequate treatment basis, the gaining of sophistication by student raters, the indirectness of the final criteria measurement, or a possible contamination between the two groups.

The inexactness of results of testing the curriculum materials, however, were not so disappointing that one would want to abandon the research proposal. Major gains in both attitudes and skills were made by the two researchers in terms of their ability to conduct and administer the tests. Attitude gains toward research and participation in research projects were highly observable in the faculties of both colleges.

In regard to the overall significance of contributions of the study one must conclude that the attitudes developed toward and the skills developed in educational research will provide future benefits that are not currently observable. One must also feel that, even though the two instructional treatments did not provide significant

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[1]The Purdue Rating Scale for Instruction (see Appendix A, pp. 32-34. and the Stanford Teacher Competence Appraisal Guide (see Appendix B, pp.35-39

[2]See Appendix C, pp. 40-56.

differences, gains were made in increased faculty interest, communication, and knowledge of current developments in relation to the lecture and discussion methodologies. The two topics as such were quite broad and probably the two faculties were well-versed in them.

The four additionally proposed treatments, however, offer promise of making significant gains in the faculties in that current knowledge and practice of these four topics are not so common place as the lecture and discussion methods. It was assumed that if the beginning was made with the more familiar instructional modes, faculties would be more receptive to new information and techniques to be broached in later treatments. Hence, the climate for change has been established. The establishment of this climate can be seen not only in the faculty participants, but also in the willingness and eagerness of the two research personnel currently being trained to initiate this research project and in the cooperation of the administration of the two small colleges in helping to establish an administrative pattern through which research can take place. It is recommended that such an in-service program be continued and that the treatments become more specific through the use of more thoroughly developed materials.

## INTRODUCTION

The cultural lag characteristic of a traditional and conservative population has created in the South crucial educational needs demanding rapid development of higher education institutions and revision of past educational practices. Lane College and Freed-Hardeman College are two developing institutions in West Tennssee trying to meet these needs with expanding programs. Their plans demand not only the numerical expansion of faculty but also an increase in faculty skills including those of a research nature.

In these developing institutions the possession of limited funds presents difficulties in the recruiting of faculty to meet institutional desires and needs. Also, the heavy demand for research personnel in federal programs has made it virtually impossible to recruit this type of personnel. Hence, the only route to expansion in research activities that can be taken by the small college is one in which it develops its present faculty in research competencies. In-service experiences are needed to aid the faculty members in developing their potential contribution to higher education, not only as research personnel but also their instructional processes and skills. Progress is often too slow to meet current institutional needs and social demands. Development of a continuing in-service program, however, needs research-oriented personnel and released faculty time that can be ill afforded by the small colleges. Although both in-service programs and programs designed to develop research personnel are crucial to these institutions, attempted development is not practical without outside support.

Memphis State University, located in an area wherein recent cultural and social upheavals have demanded changes in the Southern educational system, has recently experienced an accelerated growth and is participating actively in an educational research development program. This program, beginning in August, 1966, with a grant from the U. S. Office to establish an undergraduate research training program, now includes a permanent full-time staff who assure the continued development of a solid program in research training. The university administration, through its service policy, offers its staff to assist in the development of other West Tennessee educational institutions. The West Tennessee Research Development Consortium seeks: (1) to develop research competencies of potential researchers on the campuses of the two colleges tnrough the conduct of a cooperative research venture and through research training; (2) to expose the staffs and students of each of these colleges to opportunities to observe and participate in an on-going research project; (3) to demonstrate the importance of research to developing institutions as a field of endeavor, as a decision-making instrument, and as an instructional method; (4) to develop curriculum materials which will aid in the maintenance quality of instruction in developing institutions through in-service programs; (5) to study the treatment effects of curriculum packets designed to upgrade instructional processes in higher education, a need virtually unattended; and (6) to offer laboratory experiences for research training students at Memphis State University.

## METHODS

A faculty seminar (composed of eight directly or indirectly related faculty members selected by each college's administration) designed to meet two hours every two weeks was established at each college for the 1967-68 period. The faculty was made familiar with the selected criteria instruments (the Stanford Teacher Competence Appraisal Guide and the Purude Rating Scale for Instruction). The faculty was made aware that (1) there were no local norms on these instruments; (2) there was no attempt to compare faculty ability; (3) ratings of instructional approaches by individual faculty personnel in each group were held confidential and returned to each faculty participant upon his request, elsewise individual ratings were made unidentifiable in the calculation of group means; (4) students in the classes of each faculty member provided the ratings on instructional procedures anonymously; and (5) ratings were used only to ascertain effectiveness of the treatments. After the first meeting, baseline reatings were made and the comparability of the two sections were tested.

A series of treatments was administered to the groups in a pretest-posttest design. The schedule is shown on the next page.

| Time | Group 1 | Group 2 |
|---|---|---|
| | First Semester | |
| 1st week<br>3rd week | Orientation and Baseline | Orientation and Baseline |
| 5th week<br>11th week | Discussion Methodology<br>First Criteria Measurement | Lecture Methdology<br>First Criteria Measurement |
| 13th week | Last Criteria Measurement, Analysis, Interpretation and Discussion of Results. | Last Criteria Measurement Analysis, Interpretation and Discussion of Results. |

During the second semester the treatments were exchanged between schools providing an AB-BA comparison design. Approximately the same timetable was followed. The treatment plans induded Lecture Methods and Discussion Methods for the first year. Each series of curricular treatments was and will continue to be directed toward specific behavior goals.

The lecture treatment was directed toward improvement of the most frequently used methodology in higher education.[1] Included in the eight sessions were discussions concerning instructional systems framework, video-taping, the lecture in overall instructional strategy, planning the lecture, and delivery elements.

The discussion treatment concentrated upon studying and utilizing five major modes of discussinn: (1) recitation, (2) induction or using leading questions, (3) reflective or inquiry, (4) speculative, and (5) exploratory.[2]

## FINDINGS AND ANALYSIS

Two basic types of analyses were made on the data. The first was an item analysis using difference scores calculated from pretest and posttest ratings of teachers on individual items. This analysis was used to compare treatment groups to determine if items changed on the scales as a result of the two treatments. Hence, this data analysis of the different scores made upon the items computed on the faculty members was done to compare the effectiveness of treatment over groups. There was some expected change; however, no significance was found by the comparison of difference scores using

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[1]See Appendix D, pp. 57-62.

[2]See Appendix E, pp. 63-67.

a t-test on the items of both the Stanford Teacher Competence Appraisal Guide and the Purdue Rating Scale for Instruction. Table 1 shows t-values compiled for each of the items on the difference-scores analyses. The lack of significance obtained for the Stanford Teacher Competence Appraisal Guide can be seen. Table 2 shows the difference-score analyses using t-tests on the individual items of the Purdue Scale. Table 3 and Table 4 show pretest and posttest comparisons made upon the ratings of the Lane College teachers during the first semester. These analyses are t-tests made upon the item mean of the rated scores on both the Stanford and the Purdue scales. The tables show that no significant differences were found between the pretest and posttest scores on the Lane College faculty for the discussion method. Hence, we can assume either that no identifiable change took place or that the rating system was altered as the students became more sophisticated raters. Tables 5 and 6 show analyses made upon the teachers at Freed-Hardeman College on both of the scales. Only item 5,"the use of evaluation to improve teaching and learning," showed any significance. This significance could well have been a chance occurance or could have been the new awareness that people gained through their relationship with research feedback mechanisms.

Tables 7 and 8 show the difference scores analyses made for the second semester treatments at Freed-Hardeman College. This second semester included a change of treatments. Discussion methodology was studied at Freed-Hardeman College and the lecture methodology at Lane College. The difference-scores comparison made through the use of t-tests on the items of the Stanford Guide again showed only one item with significant difference. This applied to the item designated "the beginning of the lesson." It was shown to be significantly different with a positive change made by the Freed-Hardeman faculty. Table 8 demonstrates the difference-scores ratings using t-tests on the items of the Purdue Scale. This table again indicates that there were no significant differences over the items. Hence, there can be assumed no behavior change on the indices that the Purdue Scale measures.

Tables 9 and 10 indicate the pretest and posttest analyses of data for Lane College on the two rating instruments. In Table 9 the items of the Stanford Guide were tested for significant differences on the t-test between pretest and posttest ratings. Again, no significant differences appear. Table 10 shows the parallel analysis of pretest-posttest scores made on the student ratings shown on the Purdue Scale. Again the same result, no significant differences were obtained. Tables 11 and 12 demonstrate the companion analysis made for Freed-Hardeman College. Table 11 showing the Stanford Guide again notes no significant differences made on this scale. Nor are significant differences shown by the items on the Stanford scale for Freed-Hardeman College. Table 12 indicates no significant differences obtained over the Purdue Scale for Freed-Hardeman faculty.

TABLE 1

Comparison of Difference Scores Using T-test on Items of Stanford Teacher Competence Appraisal Guide*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Clarity of Aims | .13 | 14 | ns |
| Appropriateness of Aims | .05 | 14 | ns |
| Organization of Lesson | .04 | 14 | ns |
| Selection of Content | .33 | 14 | ns |
| Selection of Materials | .36 | 14 | ns |
| Beginning the Lesson | .12 | 14 | ns |
| Clarity of Presentation | .05 | 14 | ns |
| Pacing of the Lesson | .83 | 14 | ns |
| Pupil Participation and Attention | .17 | 14 | ns |
| Ending the Lesson | .16 | 14 | ns |
| Teacher-Pupil Rapport | .15 | 14 | ns |
| Variety of Evaluative Procedures | .91 | 14 | ns |
| Use of Evaluation to Improve Teaching and Learning | 1.28 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Difference scores were formed by subtracting post-test mean student ratings from pre-test student ratings of each Lane College teacher during first semester and comparing them with difference scores for Freed-Hardeman College teachers during that semester.

TABLE 2

Comparison of Difference Scores Using T-test on Items of Purdue Rating Scale for Instruction*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Interest in Subject | .16 | 14 | ns |
| Sympathetic Attitude toward Students | .11 | 14 | ns |
| Fairness in Grading | 1.16 | 7 | ns |
| Liberal and Progressive Attitude | .78 | 14 | ns |
| Presentation of Subject Matter | .39 | 14 | ns |
| Sense of Proportion and Humor | .14 | 14 | ns |
| Self-reliance and Confidence | .07 | 14 | ns |
| Personal Peculiarities | .33 | 14 | ns |
| Personal Appearance | .21 | 14 | ns |
| Stimulating Intellectual Curiosity | .42 | 14 | ns |

Levels: $p \leq .10$ $t \geq 1.345$
$p < .05$ $t > 1.761$
$p \leq .01$ $t \geq 2.624$

*Difference scores were formed by subtracting post-test mean student ratings from pre-test student ratings of each Lane College teacher during first semester and comparing them with difference scores for Freed-Hardeman College teachers during that semester.

TABLE 3

Comparison of Pre-test/Post-test Scores Using T-test on Items of Stanford Teacher Competence Appraisal Guide*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Clarity of Aims | .38 | 14 | ns |
| Appropriateness of Aims | .17 | 14 | ns |
| Organization of Lesson | .13 | 14 | ns |
| Selection of Content | .20 | 14 | ns |
| Selection of Materials | .23 | 14 | ns |
| Beginning the Lesson | .33 | 14 | ns |
| Clarity of Presentation | .41 | 14 | ns |
| Pacing of the Lesson | .27 | 14 | ns |
| Pupil Participation and Attention | .53 | 14 | ns |
| Ending the Lesson | .04 | 14 | ns |
| Teacher-Pupil Rapport | .12 | 14 | ns |
| Variety of Evaluative Procedures | .01 | 14 | ns |
| Use of Evaluation to Improve Teaching and Learning | .00 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Lane College teacher during first semester.

TABLE 4

Comparison of Pre-test/Post-test Scores Using T-test on Items of Purdue Rating Scale for Instruction*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Interest in Subject | .56 | 14 | ns |
| Sympathetic Attitude toward Students | .79 | 14 | ns |
| Fairness in Grading | 1.89 | 10 | os |
| Liberal and Progressive Attitude | .12 | 14 | ns |
| Presentation of Subject Matter | .50 | 14 | ns |
| Sense of Proportion and Humor | .34 | 14 | ns |
| Self-reliance and Confidence | .21 | 14 | ns |
| Personal Peculiarities | .11 | 14 | ns |
| Personal Appearance | .34 | 14 | ns |
| Stimulating Intellectual Curiosity | .52 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Lane College teacher during first semester.

TABLE 5

Comparison of Pre-test/Post-test Scores Using T-test on Items of Stanford Teacher Competence Appraisal Guide*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Clarity of Aims | .51 | 14 | ns |
| Appropriateness of Aims | .17 | 14 | ns |
| Organization of Lesson | .01 | 14 | ns |
| Selection of Content | .26 | 14 | ns |
| Selection of Materials | .11 | 14 | ns |
| Beginning the Lesson | .32 | 14 | ns |
| Clarity of Presentation | .42 | 14 | ns |
| Pacing of the Lesson | .56 | 14 | ns |
| Pupil Participation and Attention | .21 | 14 | ns |
| Ending the Lesson | .64 | 14 | ns |
| Teacher-Pupil Rapport | .16 | 14 | ns |
| Variety of Evaluative Procedures | 1.06 | 14 | ns |
| Use of Evaluation to Improve Teaching and Learning | 1.47 | 14 | .10 |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Freed-Hardeman College teacher during first semester.

TABLE 6

Comparison of Pre-test/Post-test Scores Using T-test on Items of Purdue Rating Scale for Instruction*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Interest in Subject | .76 | 14 | ns |
| Sympathetic Attitude toward Students | 1.01 | 14 | ns |
| Fairness in Grading | .93 | 11 | ns |
| Liberal and Progressive Attitude | .55 | 14 | ns |
| Presentation of Subject Matter | .78 | 14 | ns |
| Sense of Proportion and Humor | 1.05 | 14 | ns |
| Self-reliance and Confidence | .49 | 14 | ns |
| Personal Peculiarities | .32 | 14 | ns |
| Personal Appearance | .62 | 14 | ns |
| Stimulating Intellectual Curiosity | .93 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Freed-Hardeman College teacher during first semester.

TABLE 7

Comparison of Difference Scores Using T-test on Items of Stanford Teacher Competence Appraisal Guide*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Clarity of Aims | .05 | 14 | ns |
| Appropriateness of Aims | .27 | 14 | ns |
| Organization of Lesson | .49 | 14 | ns |
| Selection of Content | .06 | 14 | ns |
| Selection of Materials | .30 | 14 | ns |
| Beginning the Lesson | 1.40 | 14 | .10 |
| Clarity of Presentation | .88 | 14 | ns |
| Pacing of the Lesson | .12 | 14 | ns |
| Pupil Participation and Attention | .35 | 14 | ns |
| Ending the Lesson | .37 | 14 | ns |
| Teacher-Pupil Rapport | .55 | 14 | ns |
| Variety of Evaluative Procedures | .84 | 14 | ns |
| Use of Evaluation to Improve Teaching and Learning | .14 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Difference scores were formed by subtracting pre-test mean student ratings from post-test student ratings of each Lane College teacher during the second semester and comparing them with difference scores for Freed-Hardeman College teachers during that semester.

TABLE 8

Comparison of Difference Scores Using T-test on Items of Purdue Rating Scale for Instruction*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Interest in Subject | .06 | 14 | ns |
| Sympathetic Attitude toward Students | 1.15 | 14 | ns |
| Fairness in Grading | .02 | 14 | ns |
| Liberal and Progressive Attitude | .58 | 14 | ns |
| Presentation of Subject Matter | .37 | 14 | ns |
| Sense of Proportion and Humor | .21 | 14 | ns |
| Self-reliance and Confidence | .59 | 14 | ns |
| Personal Peculiarities | .50 | 14 | ns |
| Personal Appearance | .37 | 14 | ns |
| Stimulating Intellectual Curiosity | .21 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Difference scores were formed by subtracting pre-test mean student ratings from post-test student ratings of each Lane College teacher during second semester and comparing them with difference scores for Freed-Hardeman College teachers during that semester.

TABLE 9

Comparison of Pre-test/Post-test Scores Using T-test on Items of Stanford Teacher Competence Appraisal Guide*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Clarity of Aims | .28 | 14 | ns |
| Appropriateness of Aims | .35 | 14 | ns |
| Organization of Lesson | .53 | 14 | ns |
| Selection of Content | .27 | 14 | ns |
| Selection of Materials | .50 | 14 | ns |
| Beginning the Lesson | .17 | 14 | ns |
| Clarity of Presentation | .07 | 14 | ns |
| Pacing of the Lesson | .19 | 14 | ns |
| Pupil Participation and Attention | .16 | 14 | ns |
| Ending the Lesson | .06 | 14 | ns |
| Teacher-Pupil Rapport | .07 | 14 | ns |
| Variety of Evaluative Procedures | .25 | 14 | ns |
| Use of Evaluation to Improve Teaching and Learning | .23 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Lane College teacher during the second semester.

TABLE 10

Comparison of Pre-test/Post-test Scores Using T-test on Items of Purdue Rating Scale for Instruction*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Interest in Subject | .18 | 14 | ns |
| Sympathetic Attitude toward Students | .16 | 14 | ns |
| Fairness in Grading | .15 | 14 | ns |
| Liberal and Progressive Attitude | .11 | 14 | ns |
| Presentation of Subject Matter | .20 | 14 | ns |
| Sense of Proportion and Humor | .13 | 14 | ns |
| Self-reliance and Confidence | .39 | 14 | ns |
| Personal Peculiarities | .04 | 14 | ns |
| Personal Appearance | .08 | 14 | ns |
| Stimulating Intellectual Curiosity | .31 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Lane College teacher during second semester.

TABLE 11

Comparison of Pre-test/Post-test Scores Using T-test on Items of Stanford Teacher Competence Appraisal Guide*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Clarity of Aims | .13 | 14 | ns |
| Appropriateness of Aims | .58 | 14 | ns |
| Organization of Lesson | .00 | 14 | ns |
| Selection of Content | .27 | 14 | ns |
| Selection of Materials | .13 | 14 | ns |
| Beginning the Lesson | .18 | 14 | ns |
| Clarity of Presentation | .56 | 14 | ns |
| Pacing of the Lesson | .26 | 14 | ns |
| Pupil Participation and Attention | .22 | 14 | ns |
| Ending the Lesson | .22 | 14 | ns |
| Teacher Pupil Rapport | .37 | 14 | ns |
| Variety of Evaluative Procedures | .31 | 14 | ns |
| Use of Evaluation to Improve Teaching and Learning | .20 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Freed-Hardeman College teacher during the second semester.

TABLE 12

Comparison of Pre-test/Post-test Scores Using T-test on Items of Purdue Rating Scale for Instruction*

| Item | T-Value | df | Significance |
|---|---|---|---|
| Interest in Subject | .22 | 14 | ns |
| Sympathetic Attitude toward Students | .35 | 14 | ns |
| Fairness in Grading | .07 | 14 | ns |
| Liberal and Progressive Attitude | .72 | 14 | ns |
| Presentation of Subject Matter | .10 | 14 | ns |
| Sense of Proportion and Humor | .06 | 14 | ns |
| Self-reliance and Confidence | .15 | 14 | ns |
| Personal Peculiarities | .20 | 14 | ns |
| Personal Appearance | .17 | 14 | ns |
| Stimulating Intellectual Curiosity | .42 | 14 | ns |

Levels: $p < .10$ $t > 1.345$
$p < .05$ $t > 1.761$
$p < .01$ $t > 2.624$

*Scores were mean student ratings of each Freed-Hardeman College teacher during the second semester.

In order to try to identify the weaknesses in the treatment which resulted in no significant differences, an analysis was made of different scores to see how individual members changed during the period and on what items. These analyses were made through the building of a difference scores matrix for each faculty group on each scale during each treatment. Table 13 shows the difference-score matrix computed for the Lane College group on the discussion method during the first semester on the items of the Stanford Guide. During the administration of the discussion method treatment, the group either increased or decreased, but on an inconsistent basis. Of the eight teachers, four showed increases over several items and four showed decreases over several items. This shows some indication that there was a differential effect by the treatment.

The Purdue Scale shows similar differential effect for the Lane College group for the discussion method. Table 15 shows a similar differential effect or reception of treatment on the lecture method at Freed-Hardeman on the Stanford Guide. Table 16, constructed from the data accumulated by utilizing the Purdue Scale, provides some contradictory data: only a few gains were shown, mostly by one teacher. Again there exists adequate reason to suspect differential reaction to the treatments during the first semester.

Table 17 shows the individual faculty reactions or changes made on the Stanford Guide items for Lane College teachers on the second instructional treatment of lecture. Again one can observe differential changes over the group. The majority of the teachers showed positive change; however, two faculty members show severe negative change. The Purdue Scale substantiates similar changes over the same faculty members. (See Table 18). For the Freed-Hardeman personnel, Table 19 demonstrates again a differential faculty reaction to the in-service treatments. The Stanford Guide ratings show that faculty members made both significant increases and decreases. Table 20 substantiates this for the Purdue Scale. One explanation of the lack of significant differences can be seen in the differential reactions during the second treatment phases through increased knowledge of these faculty personalities.

## CONCLUSIONS AND RECOMMENDATIONS

There apparently exist no significant differences on the two ratings scales because of the ineffectiveness of the effects of the two treatments. This is somewhat disappointing in that the two treatments seemed to have been producing noticeable results in the video-tape recordings made of the faculty personnel and in their preformance of their instructional tasks. However, the absence of student perception could be simply a lack of adequate criteria measurement affected by the clumsiness of the rating scales, the model effects of the students, and the improved ratings ability of the students as the year progressed. One can see in the video-tapes that instructional changes may or may not have met with student preferences for good instruction.

TABLE 13

Difference Scores Matrix for the Stanford Teacher Competence Appraisal Guide*

Item

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | + | + | + | + | + | + | + | + | - | + | + | + | + |
| 2 | - | + | + | + | + | - | - | - | + | - | + | - | - |
| 3 | - | - | - | - | - | - | - | - | - | - | - | + | + |
| 4 | - | - | - | - | - | - | + | - | - | - | + | - | + |
| 5 | - | - | + | - | - | - | - | - | - | + | - | - | - |
| 6 | - | + | + | + | - | + | - | + | + | + | - | + | + |
| 7 | - | - | 0 | - | - | - | - | - | - | - | - | - | - |
| 8 | + | + | - | + | - | - | + | - | - | - | + | + | + |
| Mean | - | - | - | - | - | - | - | - | - | + | + | + | + |

*Difference scores were formed by subtracting pretest mean student ratings from posttest ratings of each Lane College teacher during the first semester. The +'s, -'s, and 0's reported indicate increase, decrease, or no change respectively from pretest to posttest.

TABLE 14

Difference Scores Matrix for the Purdue Rating Scale for Instruction*

Item

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | + | + | * | + | - | - | - | - | 0 | - |
| 2 | + | - | + | + | - | - | + | + | + | + |
| 3 | - | - | * | + | + | - | - | - | - | - |
| 4 | + | - | + | + | - | + | + | + | - | + |
| 5 | - | - | * | + | + | - | - | + | - | - |
| 6 | - | - | + | + | - | - | - | - | - | - |
| 7 | - | - | * | - | - | + | - | - | - | - |
| 8 | - | - | + | + | - | - | - | - | - | - |
| Mean | - | - | + | + | - | - | - | - | - | - |

*Difference scores were formed by subtracting pretest mean student ratings from posttest student ratings of each Lane College teacher during the first semester. The +'s, -'s, 0's, and *'s reported indicate increase, decrease, no change, and not appropriate, respectively, from pretest to posttest.

TABLE 15

Difference Scores Matrix for the Stanford Teacher Competence Appraisal Guide*

Item

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | - | - | - | - | - | - | + | + |
| 2 | + | + | 0 | + | + | + | + | + | - | + | + | + | + |
| 3 | - | + | + | + | + | + | + | + | + | + | + | + | + |
| 4 | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 5 | - | - | - | + | - | - | - | + | - | + | + | + | + |
| 6 | - | - | 0 | + | + | - | 0 | + | - | + | + | + | + |
| 7 | - | - | - | - | - | - | - | - | - | - | + | + | + |
| 8 | - | - | - | - | - | - | - | + | - | - | - | - | + |
| Mean | - | - | - | + | + | - | - | + | - | + | + | + | + |

*Difference scores were formed by subtracting pretest mean student ratings from posttest ratings of each Freed-Hardeman College teacher during the first semester. The +'s, -'s, and 0's reported indicate increase, decrease, or no change respectively from pretest to posttest.

TABLE 16

Difference Scores Matrix for the Purdue Rating Scale for Instruction*

Item

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | - | - | - | - | - |
| 2 | - | - | - | - | - | - | + | + | - | - |
| 3 | - | - | * | + | + | - | + | - | - | + |
| 4 | - | - | - | + | 0 | - | - | - | - | - |
| 5 | - | - | * | - | - | - | - | - | - | - |
| 6 | + | + | + | - | - | - | - | - | - | - |
| 7 | - | - | * | - | - | + | - | - | - | - |
| 8 | - | - | - | - | - | - | - | - | - | - |
| Mean | - | - | - | - | - | - | - | - | - | - |

*Difference scores were formed by subtracting pretest mean student ratings from posttest student ratings of each Freed-Hardeman College teacher during the first semester. The +'s, -'s 0's and *'s reported indicate increase, decrease, no change, or not appropriate, respectively, from pretest to posttest.

TABLE 17

Difference Scores Matrix for the Stanford Teacher Competence Appraisal Guide*

Item

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | + | - | - | + | - | + | + | + |
| 2 | - | - | - | 0 | - | + | - | - | - | - | - | + | - |
| 3 | + | - | + | + | + | + | - | + | - | + | + | + | + |
| 4 | - | - | - | + | - | + | + | + | - | + | - | - | - |
| 5 | - | - | - | - | - | + | - | - | - | - | - | 0 | - |
| 6 | - | - | - | - | - | + | + | + | + | + | + | + | + |
| 7 | + | + | - | - | + | + | - | + | + | + | + | + | + |
| 8 | + | - | - | + | - | + | + | - | + | - | - | + | - |
| Mean | - | - | - | - | - | + | + | - | - | + | - | + | - |

*Difference scores were formed by subtracting pretest mean student ratings from posttest ratings of each Lane College teacher during the second semester. The +'s, -'s, and 0's reported indicate increase, decrease, or no change respectively, from pretest to posttest.

TABLE 18

Difference Scores Matrix for the Purdue Rating Scale for Instruction*

Item

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | + | - | + | - | - | 0 | - | - | + | - |
| 2 | - | - | - | - | - | + | - | + | - | - |
| 3 | + | - | + | + | + | - | - | + | - | + |
| 4 | - | + | + | - | + | + | - | - | + | + |
| 5 | + | - | - | + | - | - | + | - | + | + |
| 6 | - | + | - | + | - | - | - | + | - | - |
| 7 | - | + | + | + | + | + | + | + | + | + |
| 8 | + | + | + | + | - | + | + | + | - | - |
| Mean | - | + | + | + | - | + | - | - | + | - |

*Difference scores were formed by subtracting pretest mean student ratings from posttest ratings of each Lane College teacher during the second semester. The +'s, -'s, and 0's reported indicate increase or decrease, respectively, from pretest to posttest.

TABLE 19

Difference Scores Matrix for the Stanford Teacher Competence Appraisal Guide*

Item

| Teacher | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | - | - | + | + | + | + | - | - |
| 2 | - | - | + | 0 | - | - | - | + | - | - | - | - | - |
| 3 | - | - | + | + | + | - | - | + | - | - | 0 | - | - |
| 4 | + | - | + | - | + | + | - | - | - | + | - | + | + |
| 5 | - | - | - | - | + | + | + | + | - | + | - | + | + |
| 6 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7 | - | - | - | - | - | - | - | + | + | - | - | + | + |
| 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mean | - | - | - | - | - | - | - | + | - | - | - | - | - |

*Difference scores were formed by subtracting pretest mean student ratings from posttest ratings of each Freed-Hardeman College teacher during the second semester. The +'s, -'s, and 0's reported indicate increase, decrease, or no change respectively from pretest to posttest.

TABLE 20

Difference Scores Matrix for the Purdue Rating Scale for Instruction*

| Teacher | Item 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | + | - | + | - | - | - |
| 2 | - | - | - | - | + | - | 0 | - | - | 0 |
| 3 | 0 | - | - | - | + | - | + | - | - | - |
| 4 | 0 | + | + | + | + | + | + | + | 0 | + |
| 5 | - | - | - | - | - | + | - | - | - | - |
| 6 | - | - | + | - | - | - | - | - | - | - |
| 7 | + | - | + | - | - | - | - | + | + | - |
| 8 | + | - | + | - | + | - | - | - | - | - |
| Mean | - | - | + | - | + | - | + | - | - | - |

*Difference scores were formed by subtracting pretest mean student ratings from posttest ratings of each Freed-Hardeman College teacher during the second semester. The t's, -'s, and 0's reported indicate increase, decrease, or no change, respectively, from pretest to posttest.

Although the results indicate that the instructional treatments did not make a noticeable or immediate difference, there is still adequate reason to continue the application of such methodologies. There exists a great need for the constant in-service training of higher education instructors. Such training can result in long range results not immediately seen in class performances. There exists also a crucial need for the training of research personnel on the small college level. The training of such people in the problems of in-service training at the higher education level should raise the probability that high quality instructional research will take place on these campuses to improve instructional production. The benefits of involving personnel in a research study that is active and is on a long range basis can well be gleaned through the development of adequately trained personnel to carry out instructional research, through the increased interest of faculty members to participate in research, and through the development of a structure through which research can take place at the small college level. The seemingly disappointing results of finding no significant differences, however, have generated in the researchers a need to specify more definitely the treatment effects that will be used during the second year of the program.

The revision of treatment for the second year's program will center around making the instructional treatment segments more specific and easier to identify. The second year's instructional treatments focus upon topics not generally practiced most of the time in higher education instruction. They will be related to skills that faculty members have not anticipated possessing. The major problem with the two instructional treatments that are given during the 1967-68 program centered on the familiarity of faculty personnel with them. The choice, however, to begin with instructional treatments already familiar to the participants is still believed to have been a wise one. The basic strategy was to revitalize an interest in already used teaching techniques and thereby create a climate of acceptance for deeper and more penetrating in-service treatments.

It is recommended that two additional years be given to this program. Film and T.V. methods and test construction techniques would be emphasized the second year, and curriculum organization and selection and writing of instructional objectives the third year.

The test construction treatment would focus upon standardization techniques, item reliability, content validity, test reliability, discrimination validity, recall and recognition differences, and item analysis. Practice in the construction of objective tests, essay tests, and performance measures would accompany focus on test data interpretation.

The efficient utilization of films and television programs, including closed circuit demonstrations, is expected to be an important factor in upgrading instructional processes. Just the selecting and showing of

film possessing potential instructional wealth does not assure adequate instruction. The utilization of films and television programs to widen the range of classroom experiences, therefore, includes skillful selection; utilization of orientation and task direction techniques; professional decisions related to program timing; content and goals; summary and evaluation techniques; and program planning.

The selection of curriculum for the accomplishment of specific behavior changes demands more than mere knowledge of the subject area being taught. One seminar will be directed toward relating curriculum to instructional goals. Another seminar will discuss adding balance to the curriculum. The "sprial theory" and the "developmental task theory" of curriculum organization will also be included. Unit building and content sequencing will make up the practicum activities.

The selection of instructional objectives becomes a crucial element in the quality of higher education courses. Operational definitions of objectives tend not only to simplify evaluation but also instruction. Bloom's Taxonomy will be used as a classification method for ascertaining the psychological dimensions of instructional objectives. The micro-teaching procedure will again be used as an instructional technique to establish communication levels and realistic classroom objectives.

# APPENDIX C

## Raw Data

32-39 removed /40

## Means and Standard Deviations of Freed-Hardeman College Faculty on the Pre-test Administration of the Purdue Scale

October, 1967

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hall | Mean | 9.28 | 8.71 | 8.71 | 9.21 | 9.21 | 8.85 | 8.53 | 8.14 | 9.75 | 8.89 | 8.93 | |
| | SD | .84 | 1.16 | 1.91 | .90 | .90 | 1.25 | 1.35 | 1.96 | .51 | 1.08 | | 1.26 |
| Harvey | Mean | 9.90 | 9.90 | 9.80 | 9.30 | 9.20 | 9.50 | 9.20 | 8.70 | 9.60 | 9.10 | 9.42 | |
| | SD | .30 | .30 | .40 | .64 | .87 | .67 | .87 | 2.97 | .66 | 1.22 | | 1.16 |
| Kennedy | Mean | 9.62 | 9.50 | N/A | 8.75 | 8.37 | 9.12 | 8.00 | 8.75 | 9.62 | 7.25 | 8.26 | |
| | SD | .69 | .50 | | .66 | 1.11 | .60 | 3.08 | .97 | .99 | 2.86 | | 2.11 |
| King | Mean | 9.67 | 8.30 | 9.00 | 9.06 | 8.62 | 9.00 | 9.55 | 8.90 | 9.90 | 8.95 | 9.09 | |
| | SD | .60 | 1.85 | 1.12 | 1.34 | 1.58 | 1.28 | .69 | .98 | .36 | 1.12 | | 1.17 |
| Oliver | Mean | 9.30 | 9.08 | N/A | 8.76 | 8.54 | 9.15 | 8.88 | 8.16 | 8.72 | 8.10 | 8.30 | |
| | SD | .79 | 1.59 | | 1.20 | 1.64 | 1.01 | 1.04 | 1.56 | 1.13 | 1.80 | | 1.94 |
| Taylor | Mean | 9.16 | 8.83 | 8.25 | 8.41 | 8.08 | 9.16 | 8.16 | 8.16 | 9.50 | 7.25 | 8.49 | |
| | SD | .90 | .69 | 2.77 | .95 | 1.04 | 1.14 | .99 | 1.14 | .65 | .83 | | 1.25 |
| Trigg | Mean | 8.91 | 7.54 | N/A | 8.12 | 7.12 | 8116 | 8.87 | 5.70 | 7.29 | 7.58 | 7.37 | |
| | SD | .76 | 1.63 | | 2.24 | 2.77 | 1.28 | 1.05 | 2.13 | 1.93 | 1.89 | | 1.89 |
| Woods | Mean | 8.78 | 8.15 | 8.73 | 8.15 | 7.84 | 8.52 | 9.05 | 8.21 | 9.73 | 8.05 | 8.52 | |
| | SD | 1.36 | 1.31 | 1.16 | 1.39 | 1.90 | 1.35 | 1.23 | 1.51 | .64 | 1.54 | | 1.37 |
| Grand Mean | | 9.33 | 8.75 | 7.10 | 8.72 | 8.37 | 8.93 | 8.78 | 8.09 | 9.26 | 8.14 | | |
| SD | | .83 | 1.25 | 3.10 | 1.26 | 1.60 | 1.11 | 1.47 | 1.77 | .98 | 1.66 | | |

Means and Standard Deviations of Freed-Hardeman College Faculty
on the Pre-test Administration of the Stanford Guide

October 1967

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hall | Mean | 4.42 | 4.96 | 4.38 | 4.76 | 4.46 | 4.92 | 5.34 | 3.92 | 5.38 | 3.88 | 5.23 | 3.76 | 2.96 | 4.49 | |
| | SD | 1.04 | 1.13 | .96 | .89 | 1.25 | 1.24 | .78 | 2.18 | 1.27 | 1.58 | 1.34 | 2.33 | 2.30 | | 1.50 |
| Harvey | Mean | 5.00 | 5.30 | 6.00 | 5.40 | 5.80 | 5.50 | 5.20 | 4.40 | 6.40 | 4.60 | 5.80 | 4.40 | 3.70 | 5.19 | |
| | SD | 1.00 | .90 | 1.00 | 2.06 | .75 | 1.28 | .87 | 1.80 | .66 | .92 | 1.17 | 2.48 | 2.49 | | 1.47 |
| Kennedy | Mean | 4.75 | 4.25 | 4.00 | 3.75 | 5.12 | 4.50 | 4.50 | 5.00 | 4.75 | 3.87 | 4.50 | 3.12 | 2.87 | 4.23 | |
| | SD | 1.09 | .97 | 1.12 | 1.64 | 1.05 | 1.32 | 1.32 | 1.12 | 1.20 | .93 | 1.32 | 2.15 | 2.03 | | 1.38 |
| King | Mean | 4.16 | 3.86 | 4.30 | 4.53 | 4.39 | 4.72 | 4.93 | 3.00 | 4.11 | 3.51 | 4.53 | 3.58 | 3.02 | 4.05 | |
| | SD | 1.45 | 1.05 | 1.72 | 1.60 | 1.63 | 1.69 | 1.52 | 1.60 | 1.51 | 2.06 | 1.88 | 2.24 | 2.18 | | 1.73 |
| Oliver | Mean | 4.28 | 4.18 | 4.62 | 4.45 | 4.75 | 4.01 | 4.82 | 3.43 | 3.93 | 3.40 | 4.45 | 3.62 | 2.89 | 4.06 | |
| | SD | 1.23 | 1.82 | 1.35 | 1.56 | 1.54 | 1.36 | 1.34 | 1.99 | 1.52 | 1.88 | 1.78 | 2.23 | 2.29 | | 1.72 |
| Taylor | Mean | 4.00 | 4.76 | 4.46 | 4.23 | 4.46 | 3.61 | 4.46 | 2.69 | 3.76 | 2.76 | 4.07 | 2.61 | 1.92 | 3.68 | |
| | SD | 1.04 | .89 | 1.01 | 1.72 | 1.28 | 1.15 | 1.15 | 2.09 | 1.12 | 1.62 | 1.44 | 2.24 | 2.23 | | 1.53 |
| Trigg | Mean | 3.78 | 3.86 | 3.34 | 4.39 | 4.17 | 3.47 | 4.34 | 3.04 | 3.30 | 3.39 | 3.43 | 2.73 | 2.08 | 3.49 | |
| | SD | .93 | 1.60 | 1.24 | 1.01 | 1.17 | 1.53 | 1.37 | 1.20 | 1.33 | 1.13 | 1.47 | 1.89 | 1.79 | | 1.39 |
| Woods | Mean | 4.10 | 4.10 | 4.42 | 4.05 | 4.26 | 3.84 | 4.15 | 3.10 | 4.10 | 3.73 | 4.47 | 3.47 | 2.73 | 3.89 | |
| | SD | .91 | 1.37 | 1.46 | 1.54 | 1.45 | 1.56 | 1.09 | 1.65 | 1.17 | 1.29 | 1.57 | 1.63 | 1.77 | | 1.44 |
| Grand | Mean | 4.31 | 4.41 | 4.44 | 4.44 | 4.67 | 4.32 | 4.72 | 3.57 | 4.47 | 3.64 | 4.56 | 3.41 | 2.77 | | |
| | SD | 1.10 | 1.26 | 1.26 | 1.54 | 1.29 | 1.40 | 1.20 | 1.74 | 1.25 | 1.48 | 1.51 | 2.16 | 2.15 | | |

Means and Standard Deviations of Lane College Faculty
on the Pre-test Administration of the Purdue Scale

October, 1967

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | Mean | 9.00 | 8.33 | N/A | 9.16 | 8.50 | 8.63 | 8.23 | 8.23 | 9.43 | 9.00 | 8.06 | |
| | SD | 1.69 | 1.74 | | 1.29 | 1.86 | 1.14 | 2.04 | 1.89 | .84 | 1.00 | | 1.91 |
| Clay | Mean | 9.33 | 8.06 | 8.12 | 9.03 | 9.42 | 8.36 | 8.87 | 6.93 | 9.45 | 8.45 | 8.60 | |
| | SD | 1.39 | 2.83 | 3.01 | 2.48 | .95 | 2.38 | 2.41 | 3.63 | 1.76 | 3.20 | | 2.53 |
| Cooke | Mean | 8.77 | 7.63 | N/A | 6.33 | 7.75 | 7.69 | 8.22 | 7.11 | 9.22 | 7.55 | 7.48 | |
| | SD | 1.55 | 2.18 | | 2.71 | 2.50 | 2.25 | 2.27 | 2.40 | 1.70 | 2.59 | | 2.53 |
| Henderson | Mean | 9.68 | 9.59 | 8.13 | 9.54 | 9.18 | 9.27 | 9.04 | 9.36 | 9.81 | 9.36 | 9.29 | |
| | SD | .47 | .83 | 3.28 | .78 | 1.11 | 1.05 | 1.26 | .98 | .39 | 1.40 | . | 1.39 |
| Hewitt | Mean | 8.50 | 9.12 | N/A | 8.50 | 9.37 | 9.00 | 8.37 | 8.37 | 8.75 | 9.00 | 8.11 | |
| | SD | 1.87 | 1.05 | | 1.32 | .69 | 1.22 | 1.73 | 1.87 | 1.20 | 1.00 | | 1.76 |
| Howard | Mean | 9.45 | 8.95 | 6.87 | 8.33 | 7.95 | 8.37 | 9.00 | 8.41 | 9.79 | 8.37 | 8.55 | |
| | SD | .87 | 2.07 | 4.04 | 2.76 | 2.33 | 1.47 | 1.58 | 1.63 | .41 | 2.15 | | 2.16 |
| Maley | Mean | 9.50 | 9.41 | N/A | 9.41 | 8.50 | 8.00 | 8.33 | 8.91 | 9.16 | 9.00 | 8.47 | |
| | SD | .86 | .95 | | .95 | 1.61 | 1.35 | 1.31 | 1.44 | 1.34 | 1.22 | | 1.88 |
| Peek | Mean | 9.80 | 9.19 | 8.47 | 9.71 | 8.85 | 8.85 | 9.14 | 8.47 | 9.66 | 9.76 | 9.19 | |
| | SD | .39 | 1.18 | 2.36 | .88 | 2.12 | 2.19 | .94 | 2.91 | .94 | .68 | | 1.67 |
| Grand Mean | | 9.25 | 8.78 | 5.61 | 8.75 | 8.69 | 8.52 | 8.65 | 8.22 | 9.41 | 8.81 | | |
| | SD | 1.25 | 1.74 | 3.69 | 1.83 | 1.76 | 1.71 | 1.76 | 2.24 | 1.18 | 1.85 | | |

Means and Standard Deviations of Lane College Faculty
on the Pre-test Administration of the Stanford Guide

October, 1967

| Faculty Member | M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | Mean | 4.40 | 4.03 | 4.36 | 4.46 | 4.36 | 4.43 | 4.50 | 4.63 | 5.00 | 3.93 | 4.53 | 4.06 | 3.80 | 4.34 | |
| | SD | .95 | 1.47 | 1.08 | 1.59 | 1.35 | 1.48 | 1.77 | 1.76 | 1.46 | 1.34 | 1.23 | 2.06 | 2.07 | | 1.54 |
| Clay | Mean | 4.75 | 4.12 | 4.48 | 4.72 | 4.33 | 4.42 | 5.18 | 4.30 | 4.66 | 4.45 | 4.45 | 4.51 | 4.84 | 4.55 | |
| | SD | 1.65 | 1.25 | 1.28 | 1.66 | 1.65 | 1.81 | 1.80 | 1.80 | 1.41 | 1.46 | 1.74 | 1.46 | 1.62 | | 1.59 |
| Cooke | Mean | 3.76 | 3.34 | 3.92 | 3.92 | 3.73 | 4.15 | 4.05 | 4.02 | 4.50 | 3.97 | 3.68 | 3.39 | 3.18 | 3.81 | |
| | SD | 1.01 | 1.44 | 1.33 | 1.26 | 1.55 | 1.33 | 1.21 | 1.71 | 1.29 | 1.31 | 1.45 | 2.01 | 2.13 | | 1.49 |
| Henderson | Mean | 4.54 | 4.77 | 4.86 | 5.18 | 5.22 | 5.27 | 5.40 | 5.18 | 4.95 | 4.81 | 4.59 | 4.72 | 4.72 | 4.94 | |
| | SD | 1.50 | 1.62 | 1.46 | 1.27 | 1.20 | 1.39 | 1.34 | 1.15 | 1.30 | 1.75 | 1.53 | 1.51 | 193 | | 1.47 |
| Hewitt | Mean | 5.37 | 5.50 | 4.50 | 5.37 | 4.50 | 5.00 | 5.87 | 5.12 | 5.62 | 4.37 | 4.75 | 5.12 | 4.87 | 5.07 | |
| | SD | .99 | 1.41 | 1.32 | 1.11 | 1.41 | 1.22 | 1.17 | 1.05 | .99 | .86 | 1.37 | 1.36 | 1.05 | | 1.19 |
| Howard | Mean | 3.87 | 3.83 | 4.08 | 4.04 | 4.62 | 3.95 | 4.33 | 4.04 | 4.00 | 3.54 | 4.12 | 3.37 | 3.62 | 3.95 | |
| | SD | 1.36 | .99 | 1.53 | 1.65 | 1.32 | 1.17 | 1.18 | 1.43 | 1.35 | 1.73 | 2.09 | 2.02 | 2.10 | | 1.57 |
| Maley | Mean | 4.38 | 5.07 | 5.00 | 4.84 | 4.69 | 4.61 | 5.23 | 5.00 | 5.07 | 4.61 | 5.30 | 4.69 | 4.92 | 4.88 | |
| | SD | 1.73 | 1.44 | .96 | 1.23 | 1.38 | 1.69 | 1.05 | 1.62 | 1.27 | 1.27 | 1.54 | 1.98 | 1.33 | | 1.45 |
| Peek | Mean | 4.36 | 4.50 | 4.95 | 4.72 | 4.81 | 4.22 | 4.59 | 5.18 | 5.13 | 4.90 | 5.09 | 4.68 | 4.54 | 4.74 | |
| | SD | 1.37 | 1.23 | 1.15 | .91 | 1.23 | 1.35 | 1.80 | 1.19 | 1.25 | 1.35 | 1.47 | 1.55 | 1.16 | | 1.32 |
| Grand Mean | | 4.43 | 4.39 | 4.52 | 4.66 | 4.53 | 4.51 | 4.89 | 4.68 | 4.86 | 4.32 | 4.56 | 4.32 | 4.31 | | |
| SD | | 1.35 | 1.37 | 1.27 | 1.36 | 1.39 | 1.44 | 1.44 | 1.49 | 1.30 | 1.41 | 1.57 | 1.77 | 1.72 | | |

Means and Standard Deviations of Freed Hardeman College Faculty
on the Post-test Administration of the Purdue Scale

January, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hall | Mean | 7.20 | 7.04 | 5.72 | 7.12 | 7.12 | 7.56 | 7.64 | 7.28 | 9.72 | 6.52 | 7.29 | |
| | SD | 1.47 | 1.66 | 2.24 | 2.29 | 1.66 | 1.75 | 1.49 | 1.93 | .49 | 1.65 | | 1.66 |
| Harvey | Mean | 9.88 | 9.00 | 9.55 | 9.11 | 9.00 | 9.11 | 9.44 | 9.44 | 9.22 | 9.00 | 9.28 | |
| | SD | .31 | .82 | .49 | 1.09 | .82 | ..87 | .68 | .96 | .92 | .94 | | .79 |
| Kennedy | Mean | 9.33 | 9.33 | 9.33 | 8.83 | 8.50 | 8.66 | 8.83 | 8,50 | 9.50 | 8.16 | 8.90 | |
| | SD | .47 | .75 | .75 | 1.21 | .96 | .94 | 1.07 | 1.12 | .50 | 1.21 | | .90 |
| King | Mean | 9.48 | 7.16 | 8.64 | 9.10 | 8.62 | 8.81 | 9.29 | 8.78 | 9.67 | 8.40 | 8.80 | |
| | SD | 1.24 | 2.46 | 1.65 | 1.37 | 1.49 | 1.39 | 1.27 | 1.36 | 1.16 | 1.46 | | 1.49 |
| Oliver | Mean | 9.13 | 8.70 | 8.98 | 8.51 | 7.78 | 8.60 | 8.31 | 8.15 | 8.55 | 7.33 | 8.40 | |
| | SD | 1.18 | 1.16 | 1.48 | 1.34 | 2.00 | 1.57 | 1.45 | 1.44 | 1.27 | 1.76 | | 1.47 |
| Taylor | Mean | 9.40 | 8.96 | 9.44 | 8.24 | 7.28 | 8.56 | 7.48 | 7.48 | 9.48 | 6.80 | 8.31 | |
| | SD | .63 | 1.15 | .75 | 1.48 | 1.64 | 1.39 | 1.94 | 1.58 | .75 | 1.77 | | 1.31 |
| Trigg | Mean | 8.75 | 7.20 | 8.55 | 8.05 | 6.90 | 7.45 | 8.05 | 5.50 | 5.90 | 6.55 | 7.29 | |
| | SD | 1.67 | 2.04 | 1.24 | 1.86 | 2.68 | 1.72 | 2.16 | 2.46 | 2.23 | 2.31 | | 2.04 |
| Woods | Mean | 7.56 | 6.62 | 7.18 | 7.43 | 6.12 | 7.18 | 8.31 | 7.18 | 9.50 | 5.81 | 7.29 | |
| | SD | 1.84 | 1.93 | 1.29 | 1.17 | 1.90 | 1.33 | 1.58 | 1.63 | .79 | 1.88 | | 1.53 |
| Grand Mean | | 8.94 | 8.01 | 8.46 | 8.34 | 7.71 | 8.28 | 8.41 | 7.82 | 8.93 | 7.36 | | |
| | SD | 1.09 | 1.63 | 1.34 | 1.51 | 1.73 | 1.38 | 1.49 | 1.59 | 1.15 | 1.69 | | |

Means and Standard Deviations of Freed-Hardeman College Faculty
on the Post-test Administration of the Stanford Guide

January, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hall | Mean | 3.56 | 3.88 | 3.36 | 3.80 | 3.68 | 3.56 | 3.80 | 3.60 | 4.32 | 3.56 | 4.04 | 4.04 | 3.44 | 4.33 | |
| | SD | 1.10 | 1.14 | 1.09 | .85 | .93 | 1.50 | 1.26 | 1.26 | 1.05 | 1.17 | 1.61 | 1.08 | 1.06 | | 1.16 |
| Harvey | Mean | 5.44 | 5.44 | 6.00 | 6.11 | 6.44 | 5.55 | 5.22 | 5.22 | 6.33 | 5.33 | 6.00 | 5.77 | 5.66 | 5.73 | |
| | SD | .83 | 1.07 | 1.15 | 1.10 | .68 | 1.28 | 1.40 | 1.13 | .82 | 1.05 | 1.25 | 1.23 | 1.15 | | 1.09 |
| Kennedy | Mean | 3.66 | 5.16 | 5.83 | 5.33 | 5.33 | 5.00 | 5.00 | 5.83 | 5.50 | 5.33 | 4.83 | 5.66 | 5.16 | 5.20 | |
| | SD | 1.80 | 1.21 | 1.34 | 1.11 | 1.11 | 1.29 | 1.41 | .90 | .96 | 1.11 | 1.34 | 1.25 | 1.21 | | 1.23 |
| King | Mean | 4.76 | 4.76 | 5.02 | 5.34 | 5.15 | 5.21 | 5.21 | 3.68 | 5.28 | 4.39 | 5.68 | 4.94 | 4.31 | 4.90 | |
| | SD | 1.38 | 1.33 | 1.42 | 1.42 | 1.37 | 1.56 | 1.59 | 1.38 | 1.45 | 1.33 | 1.42 | 1.62 | 1.52 | | 1.45 |
| Olive | Mean | 4.05 | 4.13 | 4.58 | 4.63 | 4.70 | 3.51 | 4.60 | 3.78 | 3.70 | 3.63 | 4.86 | 4.55 | 4.13 | 4.22 | |
| | SD | 1.30 | 1.41 | 1.31 | 1.48 | 1.28 | 1.42 | 1.60 | 1.46 | 1.35 | 1.26 | 1.37 | 1.40 | 1.53 | | 1.40 |
| Taylor | Mean | 3.84 | 4.26 | 4.46 | 4.62 | 4.96 | 3.53 | 4.46 | 3.92 | 3.23 | 3.80 | 4.38 | 3.84 | 3.92 | 4.13 | |
| | SD | 1.20 | 1.09 | 1.37 | 1.30 | 1.43 | 1.34 | 1.69 | 1.38 | 1.25 | .96 | 1.53 | 1.54 | 1.11 | | 1.32 |
| Trigg | Mean | 3.45 | 3.50 | 2.95 | 3.85 | 3.85 | 3.30 | 3.50 | 2.60 | 2.95 | 3.30 | 3.50 | 3.05 | 3.15 | 3.30 | |
| | SD | 1.16 | 1.12 | 1.07 | 1.24 | 1.28 | 1.31 | 1.52 | 1.16 | 1.43 | 1.00 | 1.32 | 1.17 | 1.24 | | 1.23 |
| Woods | Mean | 3.37 | 3.31 | 3.43 | 3.31 | 3.81 | 3.12 | 3.75 | 3.31 | 3.43 | 3.18 | 3.68 | 3.06 | 2.75 | 3.35 | |
| | SD | 1.05 | 1.10 | 1.06 | .77 | 1.13 | 1.16 | 1.14 | 1.10 | 1.22 | .81 | 1.61 | 1.40 | 1.52 | | 1.16 |
| Grand | Mean | 4.01 | 4.30 | 4.45 | 4.62 | 4.74 | 4.10 | 4.44 | 3.99 | 4.34 | 4.06 | 4.68 | 4.36 | 4.06 | | |
| | SD | 1.26 | 1.19 | 1.23 | 1.18 | 1.17 | 1.36 | 1.47 | 1.23 | 1.21 | 1.10 | 1.44 | 1.34 | 1.31 | | |

Means and Standard Deviations of Lane College Faculty
on the Post-test Administration of the Purdue Scale

January, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | Mean | 9.10 | 8.56 | 8.93 | 9.26 | 8.43 | 7.90 | 8.13 | 7.60 | 9.43 | 8.80 | 8.61 | |
| | SD | 1.11 | 1.61 | 1.53 | 1.00 | 1.45 | 2.09 | 1.86 | 1.54 | .72 | 1.45 | | 1.44 |
| Clay | Mean | 9.53 | 7.25 | 8.53 | 9.46 | 8.48 | 7.84 | 9.25 | 7.46 | 9.69 | 8.82 | 8.63 | |
| | SD | .96 | 2.01 | 1.60 | .87 | 2.07 | 1.85 | 1.13 | 2.54 | .61 | 2.07 | | 1.57 |
| Cooke | Mean | 8.20 | 5.86 | 7.03 | 6.79 | 7.96 | 6.96 | 7.96 | 6.93 | 9.17 | 6.58 | 7.34 | |
| | SD | 1.71 | 2.45 | 2.65 | 2.47 | 2.44 | 2.33 | 2.89 | 2.29 | 2.02 | 2.44 | | 2.37 |
| Henderson | Mean | 10.00 | 9.46 | 9.23 | 9.61 | 9.15 | 9.38 | 9.07 | 9.53 | 9.61 | 9.53 | 9.46 | |
| | SD | 0.00 | .75 | .89 | .84 | .86 | .62 | .92 | .50 | .62 | .84 | | .68 |
| Hewitt | Mean | 7.85 | 6.57 | 9.14 | 8.71 | 8.57 | 8.85 | 8.00 | 8.42 | 7.85 | 8.14 | 8.21 | |
| | SD | 3.27 | 4.27 | .99 | 1.28 | .90 | .99 | 1.07 | 1.66 | 1.36 | 1.45 | | 1.72 |
| Howard | Mean | 9.35 | 8.27 | 8.80 | 8.80 | 6.92 | 8.02 | 8.10 | 8.10 | 9.52 | 8.00 | 8.39 | |
| | SD | 1.01 | 1.67 | 1.38 | 1.76 | 2.45 | 1.84 | 1.77 | 1.73 | .77 | 1.90 | | 1.63 |
| Maley | Mean | 8.55 | 8.55 | 7.33 | 8.66 | 7.77 | 8.22 | 8.00 | 8.88 | 8.88 | 8.33 | 8.32 | |
| | SD | 1.16 | 1.89 | 3.13 | 1.25 | 1.62 | 1.28 | 2.94 | .99 | .87 | 1.76 | | 1.74 |
| Peek | Mean | 9.17 | 9.08 | 8.95 | 9.26 | 8.39 | 8.43 | 8.17 | 8.13 | 9.39 | 8.95 | 8.79 | |
| | SD | 1.05 | 1.61 | 1.73 | 1.48 | 2.41 | 2.04 | 2.30 | 2.47 | 1.84 | 1.90 | | 1.88 |
| Grand Mean | | 8.83 | 7.99 | 8.42 | 8.85 | 8.23 | 8.23 | 8.45 | 8.11 | 9.21 | 8.34 | | |
| SD | | 1.70 | 2.23 | 2.00 | 1.36 | 1.90 | 1.74 | 1.95 | 1.92 | 1.20 | 1.78 | | |

Means and Standard Deviations of the Lane College Faculty
on the Post-test Administration of the Stanford Guide

January, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | Mean | 4.63 | 4.53 | 4.70 | 5.03 | 4.60 | 4.56 | 5.10 | 5.00 | 4.76 | 4.93 | 5.26 | 5.16 | 4.83 | 4.85 | |
| | SD | 1.02 | 1.48 | 1.24 | 1.25 | 1.17 | 1.58 | 1.27 | 1.61 | 1.28 | 1.29 | 1.44 | 1.37 | 1.51 | | 1.35 |
| Clay | Mean | 4.48 | 4.78 | 4.70 | 4.78 | 4.73 | 4.24 | 4.92 | 4.14 | 4.78 | 4.12 | 4.82 | 4.34 | 4.46 | 4.56 | |
| | SD | 1.35 | 1.46 | 1.42 | 1.65 | 1.40 | 1.74 | 1.69 | 1.65 | 1.66 | 1.43 | 1.61 | 1.68 | 1.94 | | 1.59 |
| Cooke | Mean | 3.14 | 3.29 | 3.07 | 3.55 | 3.51 | 3.85 | 3.77 | 3.59 | 4.00 | 3.44 | 3.44 | 3.66 | 3.29 | 3.51 | |
| | SD | .93 | 1.05 | 1.18 | 1.13 | 1.23 | 1.58 | 1.40 | 1.57 | 1.50 | 1.29 | 1.42 | 1.41 | 1.17 | | 1.30 |
| Henderson | Mean | 4.42 | 4.57 | 4.64 | 4.57 | 4.71 | 5.14 | 5.42 | 5.00 | 4.92 | 4.78 | 5.00 | 4.50 | 5.00 | 4.82 | |
| | SD | 1.18 | 1.50 | 1.29 | 1.40 | 1.38 | 1.41 | 1.24 | 1.31 | 1.33 | 1.52 | 1.25 | 1.72 | 1.25 | | 1.37 |
| Hewitt | Mean | 4.85 | 4.42 | 4.57 | 4.57 | 4.00 | 4.28 | 4.42 | 4.85 | 4.28 | 4.71 | 4.42 | 4.28 | 4.57 | 4.48 | |
| | SD | 1.88 | 1.50 | 1.59 | 1.59 | 1.31 | 1.28 | 1.50 | 1.46 | 1.67 | 1.58 | 1.50 | .88 | 1.40 | | 1.47 |
| Howard | Mean | 3.80 | 4.00 | 4.43 | 4.12 | 4.39 | 4.14 | 4.17 | 4.56 | 4.56 | 3.87 | 3.95 | 3.87 | 3.90 | 4.14 | |
| | SD | 1.53 | 1.62 | 1.47 | 1.66 | 1.53 | 1.60 | 1.82 | 1.70 | 1.58 | 1.55 | 1.62 | 1.52 | 1.51 | | 1.59 |
| Maley | Mean | 3.88 | 4.11 | 5.00 | 4.88 | 4.33 | 4.44 | 4.44 | 4.66 | 4.88 | 4.33 | 4.88 | 3.88 | 3.77 | 4.42 | |
| | SD | .74 | .87 | 1.15 | .99 | 1.25 | 1.50 | 1.34 | 1.15 | 1.29 | 1.49 | 1.37 | 1.20 | 1.23 | | 1.20 |
| Peck | Mean | 4.60 | 5.00 | 4.86 | 4.86 | 4.78 | 4.08 | 5.04 | 4.78 | 4.69 | 4.47 | 5.34 | 4.91 | 5.17 | 4.81 | |
| | SD | 1.50 | 1.67 | 1.51 | 1.57 | 1.28 | 1.18 | 1.60 | 1.69 | 1.71 | 1.28 | 1.71 | 1.64 | 1.34 | | 1.51 |
| Grand | Mean | 4.18 | 4.27 | 4.43 | 4.52 | 4.37 | 4.27 | 4.59 | 4.48 | 4.49 | 4.29 | 4.65 | 4.33 | 4.31 | | |
| | SD | 1.29 | 1.36 | 1.36 | 1.36 | 1.32 | 1.47 | 1.46 | 1.49 | 1.49 | 1.42 | 1.47 | 1.41 | 1.41 | | |

## Means and Standard Deviations of Freed Hardeman College Faculty on the Pre-test Administration of the Purdue Scale

March, 1968

| Faculty Member | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Evans | | | | | | | | | | | | |
| Mean | 8.92 | 8.80 | 9.44 | 8.72 | 7.24 | 8.72 | 8.28 | 8.64 | 9.80 | 7.60 | 8.61 | |
| SD | 1.16 | 1.02 | .80 | 1.15 | 2.08 | 1.51 | 2.01 | 1.44 | .57 | 1.70 | . | 1.42 |
| Hall | | | | | | | | | | | | |
| Mean | 9.00 | 8.09 | 7.27 | 8.90 | 8.09 | 8.72 | 8.00 | 8.00 | 9.31 | 8.36 | 8.42 | |
| SD | 1.04 | 1.08 | 1.86 | .79 | 1.44 | 1.05 | 1.04 | 1.41 | .39 | .88 | | 1.16 |
| Harvey | | | | | | | | | | | | |
| Mean | 9.66 | 9.66 | 9.33 | 10.00 | 8.66 | 9.66 | 9.33 | 9.66 | 10.00 | 9.33 | 9.53 | |
| SD | .47 | .47 | .47 | 0.00 | 1.25 | .47 | .47 | .47 | 0.00 | .47 | | .56 |
| Kennedy | | | | | | | | | | | | |
| Mean | 10.00 | 9.33 | 9.50 | 9.00 | 8.00 | 8.83 | 8.00 | 9.16 | 10.00 | 8.50 | 9.03 | |
| SD | 0.00 | .94 | 1.12 | .82 | 1.63 | 1.21 | 1.00 | 1.21 | 0.00 | 1.38 | | 1.06 |
| King | | | | | | | | | | | | |
| Mean | 8.90 | 6.90 | 7.10 | 8.70 | 8.60 | 7.10 | 9.70 | 9.50 | 9.80 | 8.60 | 8.49 | |
| SD | 1.14 | 1.14 | 1.45 | 2.15 | .92 | 2.66 | .64 | 1.20 | .60 | 1.11 | | 1.44 |
| Taylor | | | | | | | | | | | | |
| Mean | 9.20 | 9.28 | 8.55 | 8.77 | 7.57 | 8.91 | 8.24 | 7.75 | 9.71 | 7.28 | 8.53 | |
| SD | .93 | .96 | 2.48 | 1.66 | 1.98 | 1.19 | 1.21 | 2.07 | .54 | 2.15 | | 1.63 |
| Trigg | | | | | | | | | | | | |
| Mean | 9.57 | 8.28 | 6.50 | 8.92 | 8.07 | 8.78 | 8.71 | 6.50 | 6.85 | 7.92 | 8.01 | |
| SD | .73 | 1.33 | 3.98 | 1.33 | 1.67 | 1.01 | 1.22 | 1.59 | 1.55 | 1.62 | | 1.81 |
| Woods | | | | | | | | | | | | |
| Mean | 8.61 | 8.00 | 7.07 | 8.53 | 7.69 | 8.53 | 8.92 | 7.46 | 9.53 | 8.30 | 8.26 | |
| SD | .74 | .88 | 2.70 | 1.15 | .91 | 1.22 | 1.00 | 2.31 | .50 | 1.81 | | 1.49 |
| Grand Mean | 9.23 | 8.54 | 8.09 | 8.94 | 7.99 | 8.66 | 8.64 | 8.33 | 9.44 | 8.24 | | |
| SD | .86 | 1.00 | 2.15 | 1.28 | 1.54 | 1.42 | 1.16 | 1.56 | .69 | 1.48 | | |

Means and Standard Deviations of the Freed-Hardeman College Faculty
on the Pre-test Administration of the Stanford Guide

March, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Evans | Mean | 3.74 | 4.07 | 4.48 | 4.37 | 4.22 | 3.62 | 3.92 | 4.18 | 3.29 | 3.81 | 4.55 | 4.18 | 4.51 | 4.07 | |
| | SD | 1.17 | 1.53 | 1.10 | 1.28 | 1.13 | 1.15 | 1.21 | 1.33 | 1.29 | .94 | 1.36 | 1.21 | 1.25 | | 1.24 |
| Hall | Mean | 5.00 | 4.81 | 4.09 | 4.72 | 4.63 | 4.54 | 4.90 | 4.54 | 4.90 | 4.45 | 5.18 | 4.72 | 4.09 | 4.66 | |
| | SD | 1.41 | 1.26 | 1.62 | 1.35 | 1.22 | 1.15 | 1.31 | 1.30 | 1.31 | 1.30 | 1.26 | 1.13 | 1.31 | | 1.31 |
| Harvey | Mean | 5.75 | 5.75 | 5.50 | 5.25 | 5.25 | 6.00 | 5.00 | 5.25 | 5.50 | 5.25 | 6.00 | 5.25 | 5.75 | 5.50 | |
| | SD | 1.08 | 1.08 | 1.11 | .82 | .82 | .70 | 1.00 | 1.08 | 1.11 | .82 | 1.22 | .82 | 1.08 | | .99 |
| Kennedy | Mean | 4.83 | 5.33 | 4.50 | 5.66 | 5.00 | 5.50 | 5.33 | 5.66 | 6.16 | 4.66 | 5.33 | 5.16 | 4.66 | 5.21 | |
| | SD | .37 | .94 | 1.25 | .74 | .81 | .76 | 1.24 | .94 | .68 | 1.10 | 1.10 | .68 | .94 | | .92 |
| King | Mean | 3.60 | 4.40 | 3.70 | 4.50 | 4.60 | 3.80 | 5.30 | 4.20 | 5.80 | 4.00 | 5.90 | 4.80 | 4.60 | 4.55 | |
| | SD | .66 | 1.28 | 1.48 | 1.11 | .66 | 1.16 | .90 | 1.16 | 1.16 | 1.34 | 1.51 | 1.60 | 1.42 | | 1.22 |
| Taylor | Mean | 4.20 | 4.57 | 4.86 | 4.93 | 5.17 | 3.75 | 5.20 | 4.53 | 3.57 | 4.15 | 5.71 | 4.55 | 3.97 | 4.55 | |
| | SD | 1.34 | 1.37 | 1.51 | 1.43 | 1.58 | 1.36 | 1.32 | 1.45 | 1.76 | 1.29 | 1.43 | 1.48 | 1.49 | | 1.45 |
| Trigg | Mean | 4.14 | 4.07 | 3.92 | 4.50 | 4.35 | 5.07 | 4.42 | 3.07 | 3.42 | 3.78 | 4.14 | 3.28 | 2.71 | 3.91 | |
| | SD | 1.24 | 1.27 | 1.48 | 1.05 | 1.34 | 1.53 | 1.34 | 1.27 | .72 | 1.01 | 1.24 | 1.03 | 1.43 | | 1.25 |
| Woods | Mean | 3.76 | 4.53 | 3.53 | 3.92 | 4.38 | 3.69 | 4.76 | 3.92 | 4.92 | 4.00 | 5.00 | 3.61 | 3.46 | 4.11 | |
| | SD | 1.42 | .74 | .74 | .61 | 1.00 | 1.38 | 1.04 | .99 | 1.20 | 1.03 | 1.10 | 1.64 | 1.15 | | 1.12 |
| Grand Mean | | 4.37 | 4.69 | 4.32 | 4.73 | 4.70 | 4.49 | 4.85 | 4.42 | 4.70 | 4.26 | 5.22 | 4.44 | 4.22 | | |
| SD | | 1.15 | 1.21 | 1.32 | 1.09 | 1.11 | 1.19 | 1.19 | 1.21 | 1.20 | 1.12 | 1.29 | 1.25 | 1.28 | | |

Means and Standard Deviations of the Lane College Faculty
on the Pre-test Administration of the Purdue Scale

March, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | Mean | 8.71 | 8.21 | 8.21 | 8.82 | 7.67 | 8.00 | 8.10 | 8.35 | 8.78 | 8.42 | 8.33 | |
| | SD | 1.79 | 1.80 | 1.93 | 1.91 | 1.27 | 2.07 | 1.78 | 1.93 | 1.74 | 1.90 | | 1.92 |
| Clay | Mean | 7.70 | 6.96 | 7.29 | 8.81 | 8.48 | 7.81 | 8.66 | 6.62 | 9.14 | 8.74 | 8.02 | |
| | SD | 2.45 | 1.73 | 2.22 | 1.61 | 2.01 | 1.63 | 1.61 | 2.48 | 1.88 | 1.53 | | 1.95 |
| Henderson | Mean | 9.66 | 9.72 | 9.38 | 9.00 | 9.27 | 9.27 | 9.61 | 8.94 | 9.55 | 9.44 | 9.38 | |
| | SD | .82 | .93 | 1.01 | 2.38 | .99 | .99 | .83 | 1.54 | .83 | .96 | | 1.22 |
| Hewitt | Mean | 9.20 | 8.40 | 8.80 | 9.40 | 8.20 | 7.60 | 8.80 | 8.80 | 7.20 | 8.80 | 8.52 | |
| | SD | .75 | 1.36 | 1.17 | .49 | 1.47 | .80 | 1.17 | 1.17 | 1.33 | .98 | | 1.11 |
| Howard | Mean | 8.00 | 8.55 | 8.22 | 8.11 | 7.72 | 8.27 | 8.00 | 8.00 | 8.33 | 8.22 | 8.14 | |
| | SD | 2.45 | 1.57 | 1.27 | 2.38 | 1.97 | 1.69 | 2.38 | 1.67 | 3.04 | 1.62 | . | 2.07 |
| Maley | Mean | 9.57 | 8.53 | 8.67 | 9.21 | 9.03 | 8.46 | 8.82 | 8.21 | 9.21 | 8.64 | 8.83 | |
| | SD | .86 | 2.10 | 1.23 | 1.92 | 1.61 | 1.61 | 2.04 | 2.35 | 1.29 | 2.02 | | 1.76 |
| Peek | Mean | 9.68 | 8.54 | 8.18 | 8.68 | 8.63 | 7.93 | 8.77 | 8.86 | 9.56 | 8.50 | 8.73 | |
| | SD | .59 | 1.32 | 2.53 | 2.56 | 2.18 | 1.81 | 1.29 | 1.83 | .84 | 1.52 | | 1.76 |
| Washington | Mean | 8.82 | 7.64 | 8.05 | 7.35 | 7.70 | 7.52 | 8.29 | 7.52 | 7.94 | 8.58 | 7.94 | |
| | SD | 1.89 | 2.27 | 2.98 | 2.63 | 2.37 | 1.42 | 2.05 | 2.03 | 2.01 | 1.91 | | 2.20 |
| Grand Mean | | 8.92 | 8.32 | 8.35 | 8.67 | 8.34 | 8.11 | 8.63 | 8.16 | 8.71 | 8.67 | | |
| | SD | 1.62 | 1.69 | 1.92 | 2.09 | 1.91 | 1.56 | 1.71 | 1.92 | 1.76 | 1.60 | | |

Means and Standard Deviations of the Lane College Faculty
on the Pre-test Administration of the Stanford Guide

March, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | | | | | | | | | | | | | | | | |
| | Mean | 4.57 | 4.57 | 4.78 | 4.57 | 4.60 | 4.35 | 4.60 | 4.35 | 4.64 | 4.35 | 4.78 | 4.42 | 4.39 | 4.54 | |
| | SD | 1.29 | 1.59 | 1.32 | 1.27 | 1.50 | 1.59 | 1.65 | 1.82 | 1.61 | 1.17 | 1.24 | 1.42 | 1.80 | | 1.50 |
| Clay | | | | | | | | | | | | | | | | |
| | Mean | 4.40 | 4.14 | 3.96 | 4.00 | 4.37 | 3.92 | 4.33 | 3.74 | 4.59 | 3.62 | 4.14 | 3.59 | 3.59 | 4.03 | |
| | SD | 1.62 | 1.82 | 1.73 | 1.54 | 1.19 | 1.44 | 1.78 | 1.51 | 1.57 | 1.91 | 1.74 | 1.59 | 1.59 | | 1.63 |
| Henderson | | | | | | | | | | | | | | | | |
| | Mean | 5.55 | 5.44 | 5.61 | 5.61 | 5.55 | 5.33 | 6.11 | 5.33 | 5.88 | 5.72 | 5.50 | 4.72 | 5.27 | 5.51 | |
| | SD | 1.34 | 1.46 | 1.21 | 1.42 | 1.26 | 1.73 | 1.15 | 2.03 | 1.45 | 1.28 | 1.30 | 2.18 | 1.76 | | 1.54 |
| Hewitt | | | | | | | | | | | | | | | | |
| | Mean | 4.60 | 5.00 | 4.60 | 4.20 | 4.80 | 3.60 | 4.60 | 4.80 | 5.80 | 4.20 | 6.00 | 4.80 | 4.80 | 4.75 | |
| | SD | 1.02 | 1.10 | 1.20 | 1.17 | .98 | .80 | 1.36 | 1.33 | 1.47 | .98 | 1.55 | 1.47 | 1.17 | | 1.22 |
| Howard | | | | | | | | | | | | | | | | |
| | Mean | 3.77 | 3.77 | 4.27 | 4.72 | 4.44 | 4.22 | 3.88 | 4.44 | 4.72 | 3.88 | 3.88 | 3.66 | 3.66 | 4.10 | |
| | SD | 1.27 | 1.23 | 1.45 | 1.10 | 1.30 | 1.72 | 1.66 | 1.77 | 1.59 | 1.59 | 1.45 | 1.86 | 1.73 | | 1.53 |
| Maley | | | | | | | | | | | | | | | | |
| | Mean | 4.64 | 4.17 | 4.67 | 5.00 | 4.82 | 4.89 | 5.00 | 4.46 | 4.57 | 4.17 | 4.75 | 4.21 | 4.21 | 4.58 | |
| | SD | 1.23 | 1.56 | 1.07 | 1.25 | 1.81 | 1.52 | 1.69 | 1.68 | 1.32 | 1.54 | 1.88 | 2.02 | 1.78 | | 1.59 |
| Peek | | | | | | | | | | | | | | | | |
| | Mean | 4.86 | 5.00 | 5.00 | 5.15 | 4.93 | 4.26 | 5.55 | 4.73 | 4.42 | 4.57 | 5.35 | 4.68 | 5.11 | 4.89 | |
| | SD | 1.31 | 1.30 | 1.14 | 1.19 | 1.08 | 1.58 | 1.27 | 1.25 | 1.51 | 1.36 | 1.29 | 1.36 | 1.34 | | 1.31 |
| Washington | | | | | | | | | | | | | | | | |
| | Mean | 3.58 | 3.82 | 3.88 | 3.58 | 3.88 | 4.29 | 4.00 | 4.23 | 3.94 | 3.82 | 4.47 | 4.35 | 4.23 | 4.00 | |
| | SD | 1.29 | 1.04 | 1.45 | 1.37 | 1.78 | 1.96 | 1.37 | 1.83 | 1.11 | 1.20 | 1.50 | 1.53 | 1.48 | | 1.48 |
| Grand Mean | | 4.50 | 4.49 | 4.59 | 4.60 | 4.67 | 4.36 | 4.76 | 4.51 | 4.82 | 4.29 | 4.86 | 4.30 | 4.41 | | |
| | SD | 1.31 | 1.41 | 1.34 | 1.30 | 1.39 | 1.58 | 1.51 | 1.67 | 1.46 | 1.41 | 1.51 | 1.71 | 1.60 | | |

Means and Standard Deviations of Freed-Hardeman College Faculty
on the Post-test Administration of the Purdue Scale

May, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Evans | Mean | 8.42 | 8.68 | 8.73 | 8.57 | 7.47 | 8.52 | 8.36 | 8.26 | 9.00 | 6.84 | 8.28 | |
| | SD | 1.73 | 1.26 | 2.22 | 1.09 | 1.35 | 1.27 | 1.53 | 1.33 | 2.25 | 1.93 | | 1.64 |
| Hall | Mean | 8.36 | 7.45 | 7.09 | 8.18 | 8.18 | 8.27 | 8.00 | 7.72 | 9.36 | 8.36 | 8.09 | |
| | SD | 1.37 | 1.30 | 1.78 | 1.40 | .83 | 1.29 | 1.21 | 1.14 | .77 | 1.15 | | 1.25 |
| Harvey | Mean | 9.66 | 8.33 | 8.66 | 8.66 | 9.33 | 9.33 | 9.66 | 8.66 | 9.66 | 8.33 | 9.03 | |
| | SD | .47 | .47 | .94 | .47 | .47 | .47 | .47 | .94 | .47 | .47 | | .60 |
| Kennedy | Mean | 10.00 | 9.40 | 9.60 | 9.20 | 9.00 | 9.00 | 9.20 | 9.20 | 10.00 | 8.60 | 9.32 | |
| | SD | 0.00 | .50 | .80 | .75 | .63 | 1.10 | .75 | .75 | 0.00 | .50 | | ..66 |
| King | Mean | 8.77 | 6.66 | 6.22 | 8.11 | 7.77 | 8.11 | 9.44 | 8.33 | 9.77 | 8.00 | 8.12 | |
| | SD | .92 | 1.89 | 1.47 | 1.97 | 1.87 | 1.85 | .96 | 1.15 | .42 | 1.49 | . | 1.48 |
| Taylor | Mean | 8.94 | 8.56 | 8.76 | 8.74 | 6.92 | 8.71 | 8.20 | 7.66 | 9.43 | 7.02 | 8.29 | |
| | SD | .90 | 1.26 | 1.48 | 1.03 | 2.00 | 1.24 | 1.07 | 1.71 | .78 | 1.89 | | 1.39 |
| Trigg | Mean | 9.75 | 8.25 | 9.50 | 8.83 | 8.00 | 8.50 | 8.66 | 6.83 | 7.41 | 7.75 | 8.34 | |
| | SD | .60 | 1.23 | .65 | 1.21 | 1.47 | 1.19 | 1.37 | 1.62 | 1.55 | 1.92 | | 1.34 |
| Woods | Mean | 8.70 | 7.80 | 7.10 | 8.00 | 8.00 | 8.40 | 8.60 | 8.00 | 9.20 | 8.10 | 8.19 | |
| | SD | .64 | 1.33 | 1.81 | 1.10 | .63 | 1.02 | 1.02 | .77 | .75 | 1.45 | | 1.11 |
| Grand Mean | | 9.07 | 8.14 | 8.21 | 8.53 | 8.08 | 8.60 | 8.76 | 8.08 | 9.23 | 7.87 | | |
| | SD | .97 | 1.23 | 1.49 | 1.20 | 1.29 | 1.23 | 1.09 | 1.23 | 1.10 | 1.46 | | |

## Means and Standard Deviations of the Freed-Hardeman College Faculty on the Pre-test Administration of the Stanford Guide

May, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Evans | Mean | 3.53 | 3.80 | 4.20 | 4.06 | 3.93 | 3.53 | 3.86 | 4.26 | 3.86 | 3.93 | 4.66 | 3.53 | 3.66 | 3.91 | |
| | SD | .96 | .98 | 1.11 | 1.34 | 1.06 | 1.20 | 1.09 | 1.00 | 1.31 | 1.18 | 1.53 | 1.15 | .94 | | 1.15 |
| Hall | Mean | 4.27 | 4.54 | 4.45 | 4.72 | 4.45 | 4.18 | 4.72 | 4.72 | 4.45 | 4.18 | 4.90 | 4.54 | 3.90 | 4.46 | |
| | SD | 1.05 | 1.23 | .89 | .96 | 1.50 | 1.40 | .96 | 1.29 | 1.16 | 1.11 | 1.31 | 1.18 | 1.56 | | 1.22 |
| Harvey | Mean | 5.33 | 4.66 | 6.00 | 5.33 | 5.33 | 5.66 | 4.66 | 3.66 | 4.66 | 4.33 | 6.00 | 4.33 | 4.33 | 4.94 | |
| | SD | 1.25 | 1.25 | 0.00 | 1.70 | .94 | .47 | .47 | .47 | 1.25 | 1.25 | 1.41 | 1.25 | 1.25 | | 1.01 |
| Kennedy | Mean | 5.40 | 5.20 | 5.60 | 5.40 | 5.40 | 6.00 | 4.80 | 5.20 | 5.80 | 5.20 | 5.20 | 5.20 | 5.20 | 5.35 | |
| | SD | .80 | 1.17 | .80 | .80 | .80 | .63 | 1.33 | .98 | .75 | .98 | .98 | .98 | .98 | | .94 |
| King | Mean | 3.55 | 4.11 | 2.55 | 3.88 | 4.66 | 3.88 | 5.33 | 4.55 | 5.33 | 4.55 | 5.33 | 4.88 | 4.77 | 4.41 | |
| | SD | 1.17 | .99 | 1.50 | 1.10 | 1.16 | 1.73 | 1.05 | 1.28 | 1.56 | 1.42 | 1.63 | 1.45 | 1.40 | | 1.36 |
| Taylor | Mean | 3.70 | 3.87 | 4.17 | 4.26 | 4.31 | 2.58 | 3.95 | 3.78 | 2.82 | 3.31 | 5.17 | 3.60 | 3.70 | 3.79 | |
| | SD | 1.06 | 1.00 | 1.46 | 1.10 | 1.49 | 1.25 | 1.45 | 1.42 | 1.29 | 1.00 | 1.61 | 1.27 | 1.31 | | 1.30 |
| Trigg | Mean | 4.00 | 3.91 | 3.83 | 4.33 | 4.25 | 4.41 | 4.08 | 3.08 | 3.83 | 3.66 | 3.83 | 3.91 | 3.33 | 3.88 | |
| | SD | 1.29 | 1.32 | 1.57 | 1.03 | 1.53 | 1.75 | 1.50 | 1.38 | 1.28 | 1.49 | 1.07 | 1.26 | 1.49 | | 1.40 |
| Woods | Mean | 4.20 | 4.10 | 3.80 | 4.30 | 4.60 | 3.80 | 4.50 | 4.10 | 4.30 | 3.70 | 4.20 | 3.30 | 3.20 | 4.00 | |
| | SD | .87 | .94 | 1.17 | 1.00 | 1.02 | .87 | .92 | .70 | 1.00 | .64 | 1.08 | .78 | .75 | | .92 |
| Grand | Mean | 4.25 | 4.27 | 4.32 | 4.53 | 4.61 | 4.25 | 4.49 | 4.17 | 4.38 | 4.11 | 4.91 | 4.16 | 4.01 | | |
| | SD | 1.07 | 1.12 | 1.17 | 1.16 | 1.22 | 1.25 | 1.14 | 1.11 | 1.22 | 1.16 | 1.35 | 1.18 | 1.24 | | |

Means and Standard Deviations of the Lane College Faculty
on the Post-test Administration of the Purdue Scale

May, 1968

| Faculty Member | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | | | | | | | | | | | | |
| Mean | 8.79 | 8.03 | 8.44 | 8.72 | 7.34 | 8.00 | 7.89 | 8.06 | 8.89 | 7.27 | 8.14 | |
| SD | 1.27 | 1.83 | 1.43 | 1.46 | 1.86 | 2.05 | 1.45 | 1.20 | 1.21 | 2.52 | | 1.68 |
| Clay | | | | | | | | | | | | |
| Mean | 7.56 | 6.91 | 7.17 | 8.21 | 7.56 | 7.86 | 8.17 | 6.69 | 9.08 | 8.30 | 7.75 | |
| SD | 2.10 | 1.59 | 1.95 | 1.69 | 2.12 | 1.75 | 2.16 | 2.56 | 1.44 | 1.60 | . | 1.92 |
| Henderson | | | | | | | | | | | | |
| Mean | 9.73 | 9.63 | 9.57 | 9.73 | 9.52 | 9.26 | 9.10 | 9.31 | 9.10 | 9.52 | 9.45 | |
| SD | .55 | .67 | .99 | .55 | .60 | 1.02 | 1.02 | .92 | .97 | .60 | | .81 |
| Hewitt | | | | | | | | | | | | |
| Mean | 8.00 | 9.33 | 9.33 | 8.00 | 8.33 | 8.00 | 7.33 | 8.33 | 8.00 | 9.00 | 8.36 | |
| SD | .82 | .94 | .94 | 1.41 | 1.25 | 1.41 | .47 | 1.25 | .82 | .82 | | 1.05 |
| Howard | | | | | | | | | | | | |
| Mean | 8.33 | 8.25 | 7.66 | 8.50 | 7.58 | 7.25 | 8.41 | 7.08 | 9.75 | 8.25 | 8.10 | |
| SD | 1.10 | 1.30 | 1.37 | 2.02 | 2.02 | 1.96 | 1.26 | 1.71 | .43 | 1.48 | | 1.54 |
| Maley | | | | | | | | | | | | |
| Mean | 8.22 | 8.70 | 8.29 | 9.22 | 8.18 | 8.14 | 8.55 | 8.81 | 8.51 | 8.33 | 8.59 | |
| SD | 1.34 | 1.84 | 1.54 | 1.34 | 1.74 | 1.41 | 1.29 | 1.52 | 1.40 | 1.81 | | 1.53 |
| Peek | | | | | | | | | | | | |
| Mean | 9.36 | 9.34 | 8.86 | 9.68 | 9.36 | 9.55 | 9.00 | 8.92 | 9.81 | 8.97 | 9.28 | |
| SD | .93 | 1.34 | 2.07 | .57 | .78 | .68 | 1.17 | 1.83 | .45 | 2.23 | | 1.35 |
| Washington | | | | | | | | | | | | |
| Mean | 8.87 | 7.87 | 8.62 | 8.12 | 7.25 | 7.75 | 8.37 | 7.75 | 7.25 | 7.87 | 7.97 | |
| SD | .93 | 1.76 | 1.22 | 1.96 | 2.44 | 1.20 | 1.80 | 1.85 | 1.79 | 1.54 | | 1.70 |
| Grand Mean | 8.73 | 8.51 | 8.49 | 8.77 | 8.14 | 8.22 | 8.35 | 8.12 | 8.80 | 8.44 | | |
| SD | 1.21 | 1.47 | 1.49 | 1.47 | 1.72 | 1.50 | 1.41 | 1.67 | 1.16 | 1.68 | | |

Means and Standard Deviations of the Lane College Faculty
on the Post-test Administration of the Stanford Guide

May, 1968

| Faculty Member | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Item Mean | SD on Item Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Braxter | Mean | 3.68 | 3.72 | 4.20 | 3.82 | 4.20 | 4.65 | 4.24 | 3.93 | 4.79 | 3.86 | 4.79 | 4.44 | 4.44 | 4.21 | |
| | SD | 1.32 | 1.46 | 1.61 | 1.34 | 1.45 | 1.79 | 1.79 | 1.91 | 1.79 | 1.89 | 1.65 | 1.45 | 1.57 | | 1.63 |
| Clay | Mean | 4.17 | 3.91 | 3.65 | 4.00 | 4.04 | 4.30 | 4.13 | 3.17 | 4.13 | 3.43 | 4.00 | 3.86 | 3.39 | 3.85 | |
| | SD | 1.55 | 1.35 | 1.17 | 1.06 | 1.23 | 1.33 | 1.45 | 1.13 | 1.36 | 1.25 | 1.32 | 1.26 | .86 | | 1.27 |
| Henderson | Mean | 5.73 | 5.15 | 5.63 | 5.73 | 5.68 | 5.73 | 6.00 | 5.78 | 5.78 | 6.05 | 6.10 | 6.00 | 5.73 | 5.78 | |
| | SD | 1.16 | 1.93 | 1.27 | 1.33 | 1.22 | 1.41 | 1.30 | 1.44 | 1.29 | 1.23 | 1.29 | 1.12 | 1.41 | | 1.35 |
| Hewitt | Mean | 4.00 | 4.33 | 4.00 | 4.33 | 3.66 | 5.00 | 5.00 | 5.33 | 5.33 | 4.33 | 5.00 | 4.33 | 3.66 | 4.48 | |
| | SD | .82 | .47 | .82 | .94 | .47 | .82 | .00 | .47 | 1.25 | .47 | 1.63 | .47 | .94 | | .84 |
| Howard | Mean | 3.58 | 3.50 | 3.25 | 3.83 | 3.50 | 2.91 | 3.58 | 3.91 | 3.83 | 3.75 | 3.83 | 3.66 | 3.08 | 3.55 | |
| | SD | 1.11 | .76 | .92 | .90 | 1.32 | 1.19 | 1.04 | 1.32 | 1.52 | 1.53 | 1.14 | 1.03 | .95 | | 1.16 |
| Maley | Mean | 3.96 | 3.92 | 4.07 | 4.07 | 4.44 | 4.40 | 4.55 | 3.81 | 4.22 | 3.81 | 4.55 | 4.07 | 4.07 | 4.15 | |
| | SD | 1.00 | 1.25 | 1.27 | 1.59 | 1.20 | 1.47 | 1.45 | 1.25 | 1.71 | 1.25 | 1.52 | 1.15 | 1.30 | | 1.35 |
| Peek | Mean | 5.02 | 5.18 | 4.73 | 5.13 | 5.00 | 4.68 | 5.52 | 5.00 | 5.02 | 4.89 | 5.76 | 5.15 | 5.15 | 5.09 | |
| | SD | 1.16 | 1.27 | 1.39 | 1.30 | 1.19 | 1.43 | 1.14 | 1.24 | 1.26 | 1.10 | 1.40 | 1.35 | 1.25 | | 1.27 |
| Washington | Mean | 3.87 | 3.50 | 3.50 | 3.75 | 3.37 | 4.37 | 4.50 | 3.75 | 4.37 | 3.75 | 4.25 | 4.62 | 4.00 | 3.97 | |
| | SD | .78 | .87 | .87 | .83 | 1.11 | 1.65 | .87 | .97 | .70 | .83 | .97 | 1.41 | 1.30 | | 1.05 |
| Grand | Mean | 4.25 | 4.15 | 4.13 | 4.33 | 4.24 | 4.50 | 4.69 | 4.33 | 4.68 | 4.23 | 4.78 | 4.52 | 4.18 | | |
| | SD | 1.14 | 1.24 | 1.19 | 1.19 | 1.18 | 1.41 | 1.24 | 1.27 | 1.39 | 1.26 | 1.38 | 1.19 | 1.22 | | |

# APPENDIX D

## Lecture Treatment

SUGGESTIONS FOR RESEARCH CONSORTIUM IN-SERVICE TREATMENT

Lecture Phase Within Instructional Systems Framework

Session Outline:

I. Orientation--Instructional Systems Framework

II. Trial Taping Session Use for Pretest Data

III. The Lecture in Overall Instructional Strategy

IV. Planning the Lecture Preactive Phase

V. Delivery Elements (interactive phase)

VI. Microsession and Afternoon Playback Sessions

VII. Microsession and Afternoon Playback Sessions

VIII. Summary Session

Alternate arrangement

Combine Sessions III and IV

Then V becomes IV

And V becomes microsession; VI microsession; VII microsession

## Suggested Topic Inclusion for Sessions

Session

I. Orientation Session--Instructional Systems Framework

A. The framework

1. Relate instructional methodology to

a. Objectives

b. Student characteristics

c. Teacher confidence

d. Teacher competence in content

e. Teacher skill with various instructional tools

2. Subject content vs. instructional process

3. Preteaching acts (planning); interactive performance (actual teaching encounter); postteaching acts (evaluation).

B. Overview of plans for the entire project

C. Demonstration tapes (?) showing contrasts, e.g., stereotyped lecture (as the total instructional process) vs. an instructional period utilizing

1. Several instructional techniques, strategies, etc.

2. When lecture used, used in appropriate context, and meeting good lecture criteria

D. Make assignment for trial taping session

II. Trial Taping (Micro) Session

A. Taping

1. Use for pretest data (save for gain comparisons)'

2. Based on assignment from Session I

a. First five minutes of "x" lecture in content field

b. Last five minutes of same lecture

3. Previous session has by design included minimal explanation about microtaping techniques

Session

B. Teach appropriate tape analysis system

C. Schedule afternoon playback sessions, using self-analysis (if desired)

III. The Lecture in Overall Instructional Strategy

A. Raise questions: induce or provide answers

1. Must lecture be self-contained? Stand alone?

2. Can it be a part of a larger instructional strategy?

3. What is its purpose in the overall instructional process?

4. What can it do? What can it not do?

5. How to relate procedure (or technique), in this instance lecture to instructional (or course) objectives?

B. Summarize

C. Utilize good and bad instructional demonstration tape clips (be sure that lecture is identifiable where used, but in "good" tape, be sure it is one of several techniques integrated into total system.)

D. Criteria of appropriateness for lecture usage--induce from discussion above and analysis of tapes.

IV. Planning the Lecture (preactive phases)

A. Topic selection/content relevance

B. Logic of content

C. Organizational schemes

1. Logical or "pile" approach

2. Deductive vs. inductive approach

3. Advantages and disadvantages of each

4. Need for variety

(Note--"pile" approach ignores logic--piles up examples until a point of view is established.

D. Planning for

1. Beginnings--creating set

2. Internal consistency and devices

Session

a. Development of content "points"

b. Smooth transitions between points

c. Repetition to previous material.

d. Use of analogy

e. Relating to previous material

f. Review or recapitulation strategies

g. Use of rhetorical questions

3. Breaks in the lecture

4. Closure

E. Use short tape clips to demonstrate points--where possible

V. Delivery (interactive) Elements

A. Techniques of speech/voice/etc.

B. Giving clear directions/making teacher's expectations of student clear

C. Reading feedback cues

1. Proximity factor

a. In small group lectures

b. In large lecture hall

2. Feedback protocals (a la McGraw if available)

D. Making interactive strategy decisions based on feedback

1. Alternatives--e.g., repetitions, review, questions, clarifications, changed or additional analogies, etc.

E. Use of probes to draw feedback

F. Make assignments for "mini-lecture" for use in Session VI

VI. Microsession and Afternoon Playback Sessions

A. First trial teaching of such lecture parts as

1. Creating set

2. Developing single content "point"

3. Use of analogy

4. Use of rhetorical question

5. Closure

(Suggested only--
may not be appropriate segments
for these groups
probably impossible to do this
much
can use others, relate to
Session IV)

Session

B. Review self-analysis system

VII. Microsession and Afternoon Playback Sessions

A. Reteach session

1. Tape opening, development, closing of a brief or "mini-lecture"

2. Use for comparison with pretest tape

VIII. Summary Session

A. Recapitulation

B. Use selected "before-after" tape clips/elicit group reaction

C. Solicit verbal "agreement" to give fair trial to new techniques in regular classroom

D. Evaluation--? Whatever systematic approach which fits research design (over and beyond tapes). Might consider pretest and posttest attitude measures, pretest and posttest classroom observations.

# APPENDIX E

## Discussion Treatment

CONCEPTUAL MODEL FOR THE CONTENTS OF
THE DISCUSSION TREATMENT

| DISCUSSION MODE | PURPOSE OF MODE |
|---|---|
| A. Recitation | To answer acquisitions of rather well-defined instructional goals (both problem and solutions well-known to the teacher and learner); e.g., What strategy did the Soviets use to resist Nazi agression? |
| B. Induction or Using Leading Questions | To develop the logic of a principle that relates events. Problem and solution known to teacher, but perceived by learner; e.g. How did the relative sizes of Russia's geography and Germany's populations effect Soviety military planning? |
| C. Reflective or Inquiry | To identify alternatives to an identified or understood problem or issue. Problem known to both teacher and learners; not all solutions known to any one participant; e.g., What factors led the Soviets to adopt this strategy? |
| D. Speculative | To define the salient characteristics of a generally experienced or perceived phenomenon; e.g., How do nations defend themselves from exterior threats? |
| E. Exploratory | To explore the nature of a broad class or total set of events or the relationship of broad sets of events to one another; e.g., What factors effect national survival? |

Conceptual Model for the Contents of
the Discussion Treatment
(Continued)

| PREDICTABILITY OF PARTICIPANTS' RESPONSE | PHYSICAL/AFFECTIVE |
|---|---|
| A. Responses highly predictable. Goal response easily identified and judged correct or incorrect. | Situations carefully structured, administratively efficient. Notes well-defined. |
| B. Limited number of learner responses possible. Teacher responds adaptively to learner response in terms of learner goal. | Situations: formal to informal<br>Roles: well defined; status leader also expert leader. |
| C. Comparatively large number of possible learner responses and each response has many graduations. | Situations: formal to intimate.<br>Roles: status leader recognized, but only on par with expertise. |
| D. Since each participant has an idiosyncratic perception of the general phenomenon there is little predictability concerning the nature of responses. | Situations: informal<br>Roles: expertise only significant. |
| E. Since the question has not been defined nor any confirmable solutions within reach, there are no limits to the possible responses of the participants. | Situations: intimate.<br>Roles: coequals. |

Conceptual Model for the Contents of
the Discussion Treatment
(Continued)

| TEACHER'S MANNER | SHARING THE DIRECTION OF THE DISCUSSION REWARDS, POSITIVE |
|---|---|
| A. Brisk, vigorous, urgent, crisp, general sense of momentous. | Routine: yes-good, thank you; often unsmiling, given with no nonsense manner. |
| B. Demanding, urgent, but patient, considerate, accepting and contemplative. | Supportive nods, vocalizations, gestures; teacher works with learners response to indicate the value he places on it. |
| C. Asserts power only to keep hold directions of discussion; otherwise very open, accepting, responsive, relaxed, contemplative. | Teacher accepts and works with learner responses, asks for additional thoughts, notes on paper or board, overtly compliments. |
| D. Accepts all responses; relaxed, open, responsive; works toward answers rather than guiding direction of discussion. | Expressed more by participants than by person who called the meeting. |
| E. All responses accepted by leader. Discussants accept or reject contributions in terms of unfolding logic discussion. | Expressed by group in terms of how each contribution is incorporated into the emerging consensus. |

Conceptual Model for the Contents of
the Discussion Treatment
(Continued)

| SHARING THE DIRECTION OF THE DISCUSSION REWARDS, NEGATIVE | CONTROL OF PARTICIPATIONS STIMULATE PARTICIPATION |
|---|---|
| A. Routine: no, try again next, again; w/o emotional connotations. | Call non-participant by name or turns. |
| B. Questions put to contrast inconsistent positions, but in spirit of inquiry rather than punitively. Non-contributions ignored or dismissed with gesture. | Ask leading question, accept response and pass questions to non-participating learner. |
| C. Ignores or quietly rejects non-contributing responses. Reminds participants of purpose of discussions. | Ask non-participating learner for his view, or remind himself of an experience that might stimulate his participation. |
| D. Expressed by participants by contributions they accept or ignore. | Make certain everyone has opportunity to participate. |
| E. Expressed by group in terms of how each contribution is incorporated into the emerging consensus. | Control by flow of group contributions. |