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ABSTRACT

Professors and courses at Austin College were evaluated sociometrically by almost 90% of all full-time resident students. The 3 professors and courses they would recommend most as well as least to other students were listed. A 30% random sample of respondents was then interviewed by other students. Both the sociometric results and the results of the interviews were given to faculty residents during the summer. They were asked to respond to a questionnaire primarily devised to indicate credibility and defensiveness. Half of the faculty were given coded interview results and half verbatim results. No significant differences in response were found. Also, there was some evidence that the procedure produced changes in faculty attitudes toward themselves and their courses. Results were also scrutinized as to tenure of faculty, years at Austin College, rank, age, choice quartiles, highest degree earned, and field of study. (Author)

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Final Report

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DEVELOPMENT AND VALIDATION OF A SOCIOMETRIC INSTRUCTOR EVALUATION INSTRUMENT AND PROCEDURE

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Final Report

Project No.
Grant No. OEC-6-72-0735-(509)

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DEVELOPMENT AND VALIDATION OF A SOCIOMETRIC INSTRUCTOR EVALUATION
INSTRUMENT AND PROCEDURE

September 1972

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The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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

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ABSTRACT

Professors and courses were evaluated sociometrically by almost 90% of all full-time resident students. The three professors and courses they would most as well as least recommend to other students were listed. A 30% random sample of respondents was then interviewed by other students. Both the sociometric results and the results of the interviews were given to faculty residents during the summer (approximately 70%). They were asked to respond to a questionnaire primarily devised to indicate credibility and defensiveness. Half the faculty were given coded interview results and half verbatim results. No significant differences in response were found. Also, there was some evidence that the procedure produced changes in faculty attitudes toward themselves and their courses. Results were also scrutinized as to tenure or none, years at Austin College, rank, age, choice quartiles (high most-high least, high most-low least, low most-high least, and low most-low least), highest degree earned, and area (Humanities, Social Sciences, or Physical Science). Results were sensible and the null hypotheses disconfirmed. Results and implications were discussed.

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DEVELOPMENT AND VALIDATION OF A SOCIOMETRIC INSTRUCTOR
EVALUATION INSTRUMENT AND PROCEDURE

The evaluation of instruction, either by self or other, is fraught with fear, distortion, conflicting objectives, rubber yardsticks, etc. Very little scientific progress has been forthcoming in this area so that instruction is best termed an art rather than a profession due to the lack of procedures for professional self correction. Within very broad limits, teachers teach as they see fit so that they live in an academic hothouse shielded from the chilling winds of negative upward communication as well as precise, reliable negative downward communication. This environment simultaneously nurtures ego delicacy from lack of negative feedback as well as attracting people who find this environment friendly to their own personal needs.

Instructional effectiveness has constituted an area of concern since the Sputnik era when Ivan was thought to know more than Johnny, sparking the development and institution of massive curriculum enrichment and modernization accompanied by heavy handed pressures put on our young people to learn more, achieve more, and generally perform better in numerous ways. These changes in curriculum and pressures on students were to no avail without provisions for excellence in instruction and its inevitable counterpart-teacher evaluation. During the more recent years of student protest that may have been related to these post-sputnik pressures, two words resounded from many directions - governance and relevance. The

latter term further implies the need for better evaluation of instruction. The most recent development seems to be the "new education" movement which has accompanied or represents a reaction to an oversupply of teachers at all levels. Whatever the cause and effect relationship it is simple logic to predict a search for effective evaluation procedures. Shinn (1972) seems to describe the "new education" as more action oriented, collaborative or student composed, humanistic and simultaneously technological, competence oriented, continuing, process oriented, questing or curiosity oriented, etc. These represent or encompass objectives which are not new but newly or more emphatically sought after. But to many such objectives represent a counter culture in relation to the way the teachers of today were taught and hence misunderstood or resisted by faculty and administration alike.

Many attempts were made to nail down teacher or institutional objectives (Gage, 1960). Tyler (1960) states that:

"In the American college community the evaluation of teaching is as common as the judgment of the quality of dormitory food and often as subjective. 'Professor Smith is a wonderful teacher!' 'We are a select college, proud of our tradition of excellence in teaching.' Comments like these are part of the typical pattern of college conversations. Yet we know they are not highly valid, objective, and impartial appraisals. Sound and systematic evaluation of college teaching exceedingly hard and yet it is highly essential to the improvement of college instruction."

Inherent in the idea of excellence, quality, or improvement is the concept of objectives. These are the benchmarks next to which instruction has to be evaluated. Yet when the objectives of an effective

teacher or even a definition is sought we find taxonomies (Bloom, 1956) or subjectively conceived student questionnaires. General impressions on reading Harvard's annual Confidential Guide or the University of Texas' Devil's Report Card are that they are "cute" journalism. But these and other efforts serve to accentuate the timeliness and need for effective instruments for evaluation and feedback.

Industry constitutes social systems with outputs which are quite tangible and easily measured. Consequently studies on the variables related to productivity are numerous and perhaps suggestive of possible strategies to employ in educational social systems. Performance appraisal as widely used in industry (basically a hierarchical approach characterized by downward communication) has many difficulties associated to which teacher evaluation can easily fall prey. Blake (1952) comments that:

"When it comes to evaluating people, though, even the most skillful manager loves his perspective and turns into a demon. He gets out his rating forms, with viscid delight combined with pain and anxiety, goes to work. He answers, to his own satisfaction, the 32 items on the form about his subordinate including such evaluations as dependability, initiative, neatness, ability to learn, promptness, character, adaptability, resourcefulness, enthusiasm, loyalty, judgment, integrity, decisiveness, tact, and 19 others. . .He reveals his good sense and starts acting like a 'God', a clinical psychologist or a psychiatrist. . ."

Likert (1961) has also addressed himself to evaluation of the first line supervisor which could be roughly equivalent to the college teacher. His procedure takes the threat out of the situation by taking evaluations from subordinate and making the information available only to the supervisor being evaluated. First-line supervisor data is only given to superiors

averaged in with a group of fellow supervisors. He can then decide if he is perceived as the kind of supervisor he would like to be--all without the threat and defensiveness inherent in other procedures. Real change is perhaps more likely to occur under such a system.

In faculty evaluation instruments, characteristics could be dwelt upon which might not apply to an instructor's strategy for instruction, e.g., lecture oriented items applied to a laboratory-inquiry oriented course, or vice versa. An excellent set of categories was devised by Hildebrand and Wilson (1970) using impeccable scientific procedures, the best correlation and factor analytic techniques. The resulting thirty-six items placed into five groupings (Appendix A) ostensibly measure effectiveness of instruction, but they would probably seem austere and unimaginative to the creative college instructor, i.e. representing convergent thinking in its most mathematical sense when he is faced with an increasingly diverging world in which walking dictionary-type college graduates quickly find themselves obsolete.

One is challenged, therefore, to approach the problem in a new or different way, free from the entrapments contained in conventional methods and procedures for measurement and evaluation of effectiveness of instruction. A major objective suggested by the state of this literature would be the development of an instrument to measure effective instruction while being sensitive to unique, individualized objectives of specific instructors. Such an instrument, coupled with an effective procedure for individual or group self-correction might constitute a needed advance in social science technology as related to educational institutions.

Such an approach arising from Moreno's (1953) Hudson Girls' School sociometric study coupled with a non-threatening evaluation procedure, seems promising. Threat is removed by making the information available to the professor only, leaving the administration to fend for themselves to meet their evaluative needs with whatever criteria they deem appropriate. The use of sociometric data provides information as to how the teacher rates according to the student-centered criteria rather than criteria based on the values of the administration, a particular discipline, any current relevance fad, or any lovely cognitive design of some expert or consultant. The students are treated more as clients than clay and trust is placed in the individual teacher to apply self-corrective measures in response to negative upward communication hitherto unavailable or garbled. A sample of students could then be interviewed as to why they made the professor and courses choices they made, and this data refined into codes so as to render the interviews unnecessary for the next time the instrument is used.

Hypotheses. Null hypothesis 1: Faculty survey responses of those receiving coded interview responses will not differ from those receiving verbatim interview responses. Null hypothesis 2: Attitude survey results and other response of faculty will not give indication that the data and procedure are instrumental in producing change in courses or methods of instruction. Null hypothesis 3: Attitude survey results of the faculty divided by age at the fifth percentile (39 or less--40 or more) will not differ significantly. Null hypothesis 4: Attitude survey results of faculty having tenure will not differ significantly from those not

having tenure. Null hypothesis 5: Attitude survey responses of the faculty divided by number of years at Austin College (five years or less-- six or more years) will not differ significantly. Null hypothesis 6: faculty attitude survey responses of the faculty will not differ significantly according to academic rank (Instructor or Assistant Professor-- Associate of Full Professor). Null hypothesis 7: Faculty attitude survey responses will not differ significantly by academic subject matter divisions (Humanities, Social Science, or Physical Science). Null Hypothesis 8: Attitude survey response of faculty will not differ significantly according to Most-Recommended--Least-Recommended quartiles (High-Most and High-Least, High-Most and Low-Least, Low-Most and High-Least, or Low-Most and Low-Least.) Null hypothesis 9: Attitude survey results of the faculty will not differ significantly according to highest degree earned (B.A. or M.A. vs Doctorate).

These hypotheses are indicative of the major objectives of this research, namely: (1) to develop an effective sociometric faculty evaluation instrument which will not only indicate positive and negative choices but effectively and inexpensively gives some indication of the reasons students make these choices, and (2) to develop a low threat procedure for communicating the data in such a way that is likely to produce change in courses and methods of instruction.

EXPERIMENTAL DESIGN

Previous Research Groundwork

Over the five years previous to this experiment, a sociometric instrument has been under development. Only last year were there efforts to communicate the results of the work. When first administered, the questions were part of a more comprehensive questionnaire given to a ten percent sample of the student body. While random sampling seemed adequate for attitude survey questions, doubts arose as to the reliability of such results in relation to a sociometric study. The following year a more comprehensive coverage was attempted.

During the last three years, the sociogram became an annual Spring research project for students in the introductory sociology course and between 80 and 95 percent of all full time resident students responses to a sociometric questionnaire were collected. (Appendix B) Four questions were asked of as many full-time resident students as could be contacted: (1.) "Would you please list the three professors you would most likely recommend to other students, (2.) . . .the three professors that you would least likely recommend to other students, (3.) . . .the three courses that you would most likely recommend to other students, (4.) . . .the three courses that you would least likely recommend to other students." These questions constituted the dependent variables. Independent variables include; sex, classification (freshman, sophomore, junior, senior), major, Greek or non-Greek and which organization if Greek, and finally, residence. In previous years four print outs were

executed by the computer: (1.) a raw score rank order of professors most recommended, (2.) a raw score rank order of professors least recommended, (3.) one of courses most recommended, and (4.) one of courses least recommended. One question which continually arose was the matter of the reasons why students made the various choices they made.

This question frequently arose in the Spring of 1971 when the results of the sociometric instrument were released to faculty members who volunteered to receive the results and comment on them. Previous to this time, it was fairly common knowledge around campus that this research was going on, but results were not being released. Frankly, the volatility of the data led not only to stringent precautions against compromising of the data but also some reluctance to distribute the results.

Sociometric data was collected as previously described by introductory sociology students in April of the 1972 Spring term. Each finished response sheet was coded by numbers assigned to each student on any particular dormitory floor so that the names of the students could be located for purposes of interviewing them. The response sheets were then assigned consecutive numbers from which a 30 percent sample of interview subjects was drawn from a table of random numbers. (Rand Corporation). Table 1 indicates the degree of randomness the sample achieved.

TABLE 1
 REPRESENTATIVENESS OF INTERVIEW SAMPLE
 TO ENTIRE POPULATION

Population Characteristic Total Responding	Entire Population 755	Sample 254	Percent of Population 33.64%
Sex			
Females	345	118	34.20
Males	410	136	33.17
Classification			
Freshmen	307	109	35.50
Sophomores	203	56	27.59
Juniors	144	51	35.42
Seniors	96	36	37.50
Affiliation			
Greek	281	101	35.94
Non-Greek	474	153	32.27
Major			
Humanities	175	67	38.28
Physical Science	176	56	31.81
Social Science	231	70	30.30
Undecided	91	30	32.96
Mixed	151	31	20.52

Interviewers. Twenty upper division undergraduates who had experience with action projects associated with other sociology courses were invited to attend a three hour training session and to conduct open-ended interviews on these sociometric respondents included in the 30 percent random sample of those respondents. The interview training session was centered around a short lecture and role-playing of interviews. Three basic

points were made in the lecture: (1) It is basically a compliment to ask someone their opinion, (2) a good interviewer keeps listening when others have stopped, and (3) when those being interviewed look to the interviewer for cues as to how they should respond they should be reminded that it is their views and opinions that are wanted. Mention was made of how most people will search for a frame of reference from others when they are uncertain as to what constitutes appropriate behavior with examples given of how Rohrschach responses had been experimentally induced simply by voice intonations used in "hmm" or "Uh-huh" responses by the tester. At this point, questions concerning how to draw people out led almost imperceptibly to role playing situations on how to draw out more tangible and explicit responses when asked why they chose either professors or courses as those they would most or least likely recommend to other students. This shift was subtle but provided a good bridge to the practice interviewing. First, they interviewed themselves and then paired off to practice interviewing another person in the training session. Finally, questions were fielded concerning the practice interviews which mainly were answered by the basic points made in the lecture-compliment when asking opinions, nonstop listening, and guarding against suggesting what constituted an appropriate response.

Coding. Interview responses were then subjected to the standard information processing technique of category development by reading the interview comments one by one, developing each category as needed, and combining categories when appropriate. This procedure was used for all four of the sociometric questions that were asked. The results were four

lists of codes-one for each question: professor most recommended, least recommended, and courses most and least recommended (see Appendix C).

Subjects. The primary focus of the study was on the potential of the instrument and procedure for producing change in faculty members. The sociometric lists and interview results were given to all faculty members on campus this summer (1972) and they were given an attitude survey questionnaire to assess their reactions to the experiment. An example of all materials included in the faculty results packet (see Appendix C). Half of the faculty were given coded results and half given verbatim interview comments on themselves and the courses they taught. An attempt was made to allow for a full range of response alternatives in the questionnaire with twenty-four Likert type questions, one nine point question on the value of student opinion, and finally an open ended question which simply stated: "your comments are earnestly solicited." Faculty responses were subjected to Chi-square statistical tests concerning eight independent variables: (1) those receiving coded vs verbatim interview responses; (2) tenured or not tenured, (3) years at Austin College; (4) rank--instructor, assistant professor, associate professor, or full professor; (5) age--0 to 50th percentile or above; (6) least-most recommended choice quartiles--high-most --high least, high most-low least, low most-high least, and low most-low least; (7) highest degree earned--B.A. and M.A. level or Doctoral level) and finally, (8) area of division--social science, physical science, or humanities. Comments were treated as well as the mean of the responses even though a measure of control tendency assumes interval rather than

ordinal data--an assumption which some criticize and others accept.

This matter is treated more precisely in the next section.

RESULTS

Coded or Non-Coded Responses

Since the primary thrust of this study, as suggested by the title of the study, was the development of a sociometric instrument for faculty evaluation, the Chi-square Contingency tests on the faculty attitude survey questionnaire (see Appendix D) between those faculty who received word for word or verbatim interview results (an example is given as a part of the packet all faculty were given (see Appendix C), and those faculty who received coded response (example also included in the packet given the faculty (see Appendix C). Approximately half the faculty were given coded responses (N=34) and no significant statistical differences were found on the faculty attitude survey questionnaire (see Appendix D). Consequently the first null hypothesis that there is no difference between faculty receiving coded vs verbatim interview responses as indicated on the faculty attitude survey results, is accepted. This gives strong confirmation that interviews will be rendered unnecessary by a sociometric questionnaire incorporating the coded alternatives.

Producing Change

The second null hypothesis states that the faculty attitude survey results and other faculty responses will not give indication that the data and procedure were instrumental in producing change in course or methods of instruction. A firm rejection of the second null hypothesis is quite difficult to achieve since most of the evidence is quite qualitative in nature. Although the experimenter has no desire to enter into the continuing dispute as to whether SD-SA Likert type scales may be treated as interval scales or only ordinal scales, Table 2 utilizes

TABLE 2

FACULTY RESPONSES TO QUESTIONNAIRE CONCERNING STUDENT SOCIOMETRIC RESPONSES AND INTERVIEWS

	SD ¹	D ²	NR ³	A ⁴	SA ⁵	N	Mean ⁶
1. I don't care who it is, it makes me nervous knowing anyone has information like this.....	16	30	15	4	2	67	2.19
2. I find this information very informative.....	5	9	16	31	6	67	3.35
3. I didn't learn anything about myself or my courses from this that I didn't already know.....	1	34	13	14	5	67	2.82
4. This information helps me evaluate myself.....	3	6	16	34	8	67	3.58
5. This data taking should be stopped.....	15	30	19	1	2	67	2.17
6. I was surprised that I didn't get more positive responses.....	3	27	29	8	6	67	2.62
7. I was surprised that I didn't get more negative recommendations.....	1	23	29	11	3	67	2.88
8. I would like to get confidential information like this every year.....	3	6	19	29	10	67	3.55
9. I don't understand the computer printouts.....	13	40	8	4	2	67	2.13
10. I wouldn't mind if this information were made public....	13	16	17	19	2	67	2.71
11. I think I can improve my teaching due to my receiving this information.....	5	10	23	26	3	67	3.17
12. I'm not sure the administration would be able to view this information in the proper perspective.....	5	19	16	22	5	67	3.04
13. Student opinions are important to me.....	0	1	7	36	23	67	4.02
14. I wouldn't mind if the administration used this information as part of evaluation of my performance or my effectiveness as a teacher.....	8	8	18	24	9	67	3.26
15. I don't believe this information reflects the opinions and attitudes of students majoring in my discipline....	6	13	33	12	3	67	2.89
16. Student comments make student recommendations of me and my courses more understandable.....	1	7	24	29	6	67	3.47
17. I suspect students recommend easy courses and professors	4	30	24	8	1	67	2.94
18. It's not really clear what the college expects of me as a teacher.....	6	34	10	13	4	67	2.62

TABLE 2 (cont.)

	SD ¹	D ²	NR ³	A ⁴	SA ⁵	N	Mean ⁶
19. I find this whole experience degrading.....	14	33	17	2	1	67	2.14
20. No matter how difficult and complicated a correction factor should be calculated so all scores for professors and courses could be compared.....	6	14	33	11	3	67	2.86
21. Wouldn't really be interested in more precise information just to be better able to compare myself with others.....	2	15	21	22	7	67	2.77
22. The choice scores and student comments do not provide enough basis for any kind of corrective action on my part.....	1	20	21	20	5	67	2.26
23. The student comments constitute the best information in the whole "package".....	1	9	25	23	9	67	3.44
24. Student comments are useless to me.....	22	34	10	1	0	67	1.85

<u>Student</u>							
0	<u>Opinion Valuation</u>						
1	1. Completely worthless						
0	2. Almost completely worthless						
4	3. Mostly worthless						
23	4. Of some value but little compared to other factors						
5	5. About equal to other factors						
17	6. Of some value - more so than other factors						
3	7. Quite valuable						
8	8. Almost completely valuable						
	9. Completely valuable						
6	N=61 1+...+9•N=5.70						
	No response						

	1 Strongly Disagree						
	2 Disagree						
	3 Undecided or No opinion						
	4 Agree						
	5 Strongly Agree						
	$\frac{SD \text{ to } SA}{N}$						

a measure of central tendency (the mean) so that results can be generally interpreted as being reacted to by the faculty with disagreement, indecision, or agreement. The mean was calculated by assigning values to each response: Strongly Disagree = 1, Disagree = 2, No Opinion or No Response = 3, Agree = 4, and Strongly Agree = 5. The mean was interpreted as "Disagree" if it fell between 1.0 and 2.49, "Indecision" between 2.5 and 3.49, and as "Agree" between 3.5 and 5.0.

In general, using this central tendency as an indicator (Table 2), it may be said that faculty disagreed with question numbers 1, 5, 9, 19, and 27. Three of these statements were designed to give respondents a chance to indicate threat regarding the data: (1) I don't care who it is, it makes me nervous knowing anyone has information like this - mean of 2.19 (disagree), (5) This data-taking should be stopped - mean of 2.17 (disagree) and (19) I find this whole experience degrading - mean of 2.14 (disagree).

Two of these statements were designed to give the respondents a chance to indicate their feelings concerning the value of the data. (22) The choice scores and student comments do not provide enough basis for any kind of corrective action on my part - mean of 2.26 (disagree) and (24) Student comments were useless to me - mean of 1.85 (disagree).

Three statements were generally agreed to regarding the value of the data. (4) This information helps me evaluate myself - mean of 3.58 (agree), (8) I would like to get confidential information like this every year - mean of 3.55 (agree), and (13) Student opinions are important to me - mean 4.02 (agree).

Of those statements dealing with threat, six showed results of indecision: (2) I find this information very informative - mean of 3.35, (3) I didn't learn anything about myself or my courses from this that I didn't already know - mean of 2.82, (11) I think I can improve my teaching due to my receiving this information - mean of 3.17, (16) Student comments make the student recommendations of me and my courses more understandable - mean of 2.94, and (23) The student comments constitute the best information in the whole "package" - mean of 3.44. Several questions regarding threat were responded to indecisively: (10) I wouldn't mind if this information were made public - mean of 2.71 (bimodal distribution), (12) I'm not sure the administration would be able to view this information in the proper perspective - mean of 3.04 (bimodal distribution), and (14) I wouldn't mind if the administration used this information as a part of their evaluation of my performance or my effectiveness as a teacher - mean of 3.26.

The remainder of the questions dealt with confirmation of such matters as whether respondents could read the computer printouts (question 9) or whether more precise data should be attempted with the application of a student exposure correction faction (questions 20 and 21). Consequently, the second null hypothesis was either disconfirmed by faculty attitude survey responses or yielded indecisive responses, but in no case did the indication of central tendency confirm the null hypothesis that the data would not indicate that sociometric data and procedure were instrumental in producing change or methods of instruction. The final nine point question showed no significant differences no matter how the respondents were divided. However, all seemed to indicate some value to

student opinion although the distribution (see Appendix M) seems to indicate the question was poorly designed.

Qualitative Evidence. More difficult to evaluate is the qualitative evidence which should be applied to the consideration of this hypothesis. The most dramatic event occurred when a very "though-minded" member of the physical science division got up before the entire faculty on campus this summer (approximately 70%) and stated that he must change or become obsolete and that he was motivated primarily by the sociometric and interview data treated in this report. He stated that he found out he was not a good lecturer as he had thought and consequently was adopting a modular approach emphasizing self-paced learning.

Also, application for tenure or promotion at Austin College includes the preparation of lengthy answers to several questions for review by a committee of the Board of Trustees. Two such applications included the sociometric and interview data as indicators of their teaching effectiveness.

In addition, one of the deans commented that the data had evidently had a salutary effect on many professors who had not otherwise indicated that such was the case. Another area dean used ~~the procedure and results~~ as a case study in his role as a consultant to a seminar for new heads of physical science departments, conducted by the Research Corporation to be noted in the "Proceedings" of the conference (in publication).

Finally, several faculty members personally expressed their appreciation for the insights they received from the data they had received. This was gratifying to the experimenter who during the period of dissemination, regularly sniffed the air for the odor of melting tar,

and listened for the sound of chickens being plucked of their feathers. This is not to say that one or two faculty members did not react in a negative way to their "package." This can be seen by the comments (see Appendix D) and by the refusal of six subjects to react to the data by means of the faculty attitude survey questionnaire. Follow-up requests were made several times asking for the return of the questionnaire simply marked "refused" if they did not wish to fill it out. As a last resort, telephone calls were made with as low pressure a tone as possible indicating that it was simply a bookkeeping sort of request. If anyone showed the least bit of resistance they were thanked and told that any reservation they might have was respected but if they had any comments, they would be appreciated.

Considering the results of the means and the more qualitative results and events, the second null hypothesis appears to be largely confirmed except for a small minority of the faculty who indicated they did not place much value on the results or were threatened by those results.

Age. Faculty members were divided by age at the fiftieth percentile and Chi-square contingency tests were applied to the responses to the faculty attitudes survey questionnaire. No significant differences were found except for question 17, I suspect students recommend easy courses and professors. On this matter, the younger half of the faculty (39 or under) tended more to agree with this question ($P = .05$) (see Appendix F) than the older half of the faculty (40 or above). Consequently, the third null hypothesis is accepted.

Tenure. Chi-square contingency tests were applied to tenured ($N = 34$) and non tenured ($N = 33$) faculty members' responses to the faculty attitude survey questionnaire (see Appendix G). Again, only one question

(number 12) showed significant differences - (12) I'm not sure the administration would be able to view this information in the proper perspective ($P = .05$). Consequently the fourth null hypothesis is accepted.

Years at Austin College. Faculty respondents when divided in half by number of years at Austin College (5 years or less and six or more) resulted in significant differences on three questions from the faculty attitude survey questionnaire (see Appendix H). Those at Austin College longer agreed more with the statement (2) I find this information very informative ($P = .05$). However, those in residence longer, disagreed more with the statements (12) I'm not sure the administration would be able to view this information in the proper perspective ($P = .01$), and (18) It's not really clear what the college expects of me as a teacher ($P = .05$). Since one of the significant differences involves a question (number 2) designed to deal with the perceived value of the data, the fifth null hypothesis cannot be fully accepted although most of the data indicates perceived value of the data. Also threat (question number 12) seems to be greater and role clarity (question number 18) less for faculty with fewer years at the college. These results also suggest that a clear, full acceptance of the fifth null hypothesis is contraindicated, but the vast amount of the data calls for at least partial confirmation.

Rank. Chi-square contingency tests were conducted of faculty response to the attitude survey questionnaire with the faculty divided into two categories by rank: (1) Instructor or Assistant Professor, and (2) Associate Professor or Full Professor. No statistically significant differences (see

Appendix I) were found so the sixth null hypothesis is confirmed or accepted.

Area. When faculty is divided by area of academic discipline (Humanities, Social Science, or Physical Science) two questions attained statistical significance (see Appendix J). Humanities faculty members were more likely to disagree with the question (7) I was surprised that I didn't get more positive recommendations ($P = .05$) but more likely to agree with (10) I wouldn't mind if this information were made public ($P = .05$). Neither of the statistically significant questions indicate the data is perceived as not being valuable, but Humanities faculty seem to be less threatened by the data and the prospect of making it public. Several other questions were designed to ascertain threat but no significant differences were found. Consequently, the seventh null hypothesis is mostly confirmed save for the one question indicated above. Chances of accepting the null hypothesis when indeed it is false seem quite small indeed.

Choice Quartiles. The faculty was divided into four categories according to whether they fell in the top or bottom half of the professor most recommended list and of the professor least recommended list. (H-H or high most recommended and high least recommended, H-L or high most and low least, L-H or low most and high least, L-L or low most and low least). Significant differences were found on Chi-square contingency tests for four questions on the faculty attitude survey questionnaire (see Appendix K). Those in the L-H category tended to agree more that (1) I don't care who it is, it makes me nervous knowing that anyone has information like this, ($P = .05$), and to disagree more that (8) I would

like to get confidential information like this every year, that (10) I wouldn't mind if this information were made public and that (18) It's not really clear what the college expects of me as a teacher. The eighth null hypothesis is rejected. Those receiving a low number of positive recommendations and a high number of negative recommendations are clearly more threatened than those falling in more enhancing choice categories.

Highest Degree Attained. When faculty were divided by highest attained degree (B. A. - M. A. vs Doctorate) no significant differences were found on the faculty attitude survey questionnaire (see Appendix L). Consequently, the ninth and final null hypothesis is accepted without reservation.

DISCUSSION AND CONCLUSIONS

In general, all the results of this study revealed "sensible" or predictable results. The greatest gain of the study was the creation of some codes as to why students choose to most recommend or least recommend professors and courses (see Appendix B). The fact that the first null hypothesis of no difference in faculty attitude responses between those receiving coded and verbatim interview responses was clearly accepted indicates that the codes employed will be as effective as interview results when used as a phrase checklist next year on a revised sociometric questionnaire.

The procedure also seems to have been largely well received by the faculty as indicated by the results of the measure of central tendency and the qualitative evidence alluded to in the previous section of this report. The mean results indicated a general lack of defensiveness that is probably attributed to the fact that the procedure used only gave individual professors the sociometric and interview results. Nothing was given to the administration so that there was no chance of the data having any influence on status, reputation, or salaries. No control group was employed to test this notion but questions on making the data public or available to the administration were not received with agreement by many faculty members. Even the presence of such a control group would have probably affected the results of the experimental group. This data is sensitive and potentially volatile. The faculty responses might not have indicated either low perceived threat or high perceived value. Rather Festinger's (1956) dissonance theory probably would have operated where faculty would have either ignored or distorted the

results. This probably explains why four of the six professors who refused to respond to the faculty attitude survey questionnaire were chosen as low on the professor most recommended list.

Age difference (39 or below and 40 or above) displayed only one statistically significant result in that younger faculty members seemed more concerned that students would recommend easy courses and professors. It seems a matter of pride more perhaps, that the younger professor proves he is no pushover. It seems related that those with fewer years in residence at Austin College (5 or less vs 6 or more) registered a lesser degree of role clarity (question 18), more mistrust in the administration ability to view this information in the proper perspective (question 12), and that they found the information significantly less informative (question 2). These questions could indicate that role definition by students is placed in secondary position until role clarity problems from the administration's point of view is first resolved. Until that resolution, student data might be viewed as threatening however, this resolution seems to occur before it can be detected as differences by academic rank (instructor-assistant professor vs associate professor-full professor).

Quite naturally, those faculty members who were not exactly enhanced by the sociometric choices or the interview results were less willing to have the information made public (question 10), more nervous that anyone has data of this nature (question 1), and less eager to want such information every year (question 10). However, the availability and communication of such information, even the knowledge that it exists, tends to create dissonance or at least activate some sort of cognitive tension system which demands some sort of response even if the information

is distorted or responded to with selective inattention. But even these responses require the expenditure of energy. However there is some evidence that change is produced utilizing this instrument and procedure. Perhaps change will be an increasingly likely response when next year's results are compared with the results outlined in this report. This comparison will be made each year until a four year cycle is established. When the point is reached where a faculty member can compare a full four year student generation, it seems redundant to include earlier responses since change surely must occur on a more regular basis.

Future development of this method and procedure seems to be strongly indicated from the results of this study.

Curiosity dictates that revised instruments should be developed for use in public schools where objectives are often anything but institutions which offer self-paced learning and encouragement toward creativity - they socialize instead (sometimes unsuccessfully). However, disciplined reason dictates that the procedure be taken to a logical developmental conclusion or to some form of closure at the higher educational level before attempting to move to another level. Consequently, it is recommended that larger institutions should be investigated for the development of efficient data collection if nothing else. Junior colleges present special problems because their student generation length is only two years, and more often than not the majority of students live off campus. Junior colleges also have the advantage of low peer influence because of these residential differences. In any event, this approach seems to show promise as a useful method to bring about educational reform, and it is recommended that further research eventually be

undertaken at all levels of education--higher, secondary, and primary.
It would also be interesting to do some cross cultural research.

APPENDICES

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APPENDIX A

COMPONENTS OF EFFECTIVE TEACHING AS PERCEIVED BY STUDENTS

	Factor coeffecient
SCALE 1. ANALYTIC/SYNTHETIC APPROACH	
1. Discusses points of view other than his own	.70
2. Contrasts implications of various theories	.66
3. Discusses recent developments in the field	.64
4. Presents origins of ideas and concepts	.60
5. Gives references for more interesting and involved points	.53
6. Presents facts and concepts from related fields	.53
7. Emphasizes conceptual understanding	.46

SCALE 2. ORGANIZATION/CLARITY	
8. Explains clearly	.78
9. Is well prepared	.63
10. Gives lectures that are easy to outline	.62
11. Is careful and precise in answering questions	.61
12. Summarizes major points	.51
13. States objectives for each class session	.50
14. Identifies what he considers important	.47

SCALE 3. INSTRUCTOR-GROUP INTERACTION	
15. Encourages class discussion	.70
16. Invites students to share their knowledge and experiences	.65
17. Clarifies thinking by identifying reasons for questions	.64
18. Invites criticism of his own ideas	.62
19. Knows if the class is understanding him or not	.58
20. Knows when students are bored or confused	.57
21. Has interest and concern in the quality of his teaching	.48
22. Has students apply concepts to demonstrate understanding	.43

SCALE 4. INSTRUCTOR-INDIVIDUAL STUDENT INTERACTION	
23. Has a genuine interest in students	.74
24. Is friendly toward students	.71
25. Relates to students as individuals	.69
26. Recognizes and greets students out of class	.68
27. Is accessable to students out of class	.65
28. Is valued for advice not directly related to the course	.64
29. Respects students as persons	.60

APPENDIX A (cont.)

	Factor coeffecient
SCALE 5. DYNAMISM/ENTHUSIASM	
30. Is a dynamic and energetic person	.80
31. Has an interesting style of presentation	.76
32. Seems to enjoy teaching	.74
33. Is enthusiastic about his subject	.65
34. Seems to have self-confidence	.64
35. Varies the speed and tone of his voice	.63
36. Has a sense of humor	.53

Based on the 1968 survey - N = 1015

APPENDIX B

STUDENT SOCIOMETRIC SURVEY

INTRODUCTION: This questionnaire is part of a sociology research project. Please do not sign your name anywhere on this questionnaire. Your real opinions and attitudes are wanted. Your questionnaire will be numbered so that a random sample may be drawn later for some student-run interviews, but no faculty member will have access to the list of names the numbers stand for, and students working on the project will only have access to information on a strict "need to know" basis. Your effort and cooperation is very much appreciated.

STATISTICAL DATA: Circle the number of the appropriate response. Please answer all statistical questions.

1. Fraternity or sorority member?
 (1) Yes (2) No
 If YES, which organization?

2. What is your classification?
 (1) Freshman (3) Junior
 (2) Sophomore (4) Senior
3. Your dormitory?
 (1) Baker (4) Clyce (7) Thompson
 (2) Dean (5) Caruth (8) Apts.
 (3) Luckett (6) Coffin
4. Your major? _____
5. Your sex? Male ____ Female ____

INSTRUCTIONS: Please list as many as three (3) students, professors, and courses according to the questions below. You need not use all three choices, but any more than three cannot be tabulated.

1. List the three (3) students whose opinions and attitudes you respect the most concerning various aspects of campus affairs.

(1) _____ (2) _____ (3) _____

2. What three (3) professors that you know would you be most likely to recommend to other students; what three (3) professors would you be least likely to recommend?

(MOST)	(LEAST)
(1) _____	(1) _____
(2) _____	(2) _____
(3) _____	(3) _____

3. What three (3) courses would you be most likely to recommend to other students?

(1)	Dept. & Course #	Name of Course	Instructor
(2)	Dept. & Course #	Name of Course	Instructor
(3)	Dept. & Course #	Name of Course	Instructor

4. What three (3) courses would you be least likely to recommend to other students?

(1)	Dept. & Course #	Name of Course	Instructor
(2)	Dept. & Course #	Name of Course	Instructor
(3)	Dept. & Course #	Name of Course	Instructor

APPENDIX C

SOCIOMETRIC DATA

CODE NUMBER 2229

For the past several years, a sociometric questionnaire has been under development which might provide faculty members with some indication of what students think of them and their courses. The data has been carefully handled so that no one student would have access to any more than a small portion of the information. For the first time last year, upon request, faculty members were given the data which concerned their courses. These faculty members responded to a questionnaire concerning the student reaction.

The information that follows indicates the number of times you were mentioned by students in response to four questions: (1) "...professors you would most likely recommend to other students," (2) "...professors...least likely to recommend," (3) "...courses you would most likely recommend to other students," and (4) "...courses...least likely to recommend."

	most likely recommended no. choices		least likely recommended no. choices	
1. Professor choices (questions 1 & 2)	58	.....	2	...
2. Course choices (questions 3 & 4)				
Basketweaving 11...	13	.....	0	...
Basketweaving 26...	4	.....	14	...
Advanced Basketweaving 88...	1		31	...

The pages that follow will provide some idea of your standing relative to other professors and courses. Please exercise caution. No correction factor has been applied to account for choice differences due to the number of students to which faculty are exposed, number of years at the college, etc. In fact, many have felt that such a correction factor would be impossible to calculate. There are some desirable aspects to the fact that a direct comparison of professor and courses cannot be made. This information is primarily for use by individual faculty members who wish to acquire more information to use in self evaluation. In other words, the intent of this research is to serve the college community by serving the faculty rather than the students or administration.

For the first time, a portion of the students have been interviewed as to why they have made the choices they made. This information is provided for you immediately following the computer print out.

Finally, a questionnaire is included for your reaction to the whole experience. Your cooperation in completing this short questionnaire is very much appreciated.

CODE NUMBER 2309

EXAMPLE OF VERBATIM RESPONSE

POSITIVE

Is just an extraordinary man and would suggest that someone take his course just to listen and watch him work. He knows that subject better than any other man.

He likes students. Will BS during class and outside of. Not a technician but authentic scientist.

Since he's been around since dinosaurs, knows it all well, obviously; wealth of information; he understands biology; just being with him enlightening; helps students understand--he stays with you until you do (or gives up because you're such a knucklehead--I can't stand it (giggle!)). He always says it isn't hard--attitude great--because he laughs about it and the fact that you can do well; still got a heck of a lot of energy, so school should not put him out--it will destroy him because he's still got so much in him to give.

The only reason I put him down was that he was my advisor. He is kind. Always listens, glad to talk to me. I've never had a course with him. I just got to be good friends to where I could talk with him.

His knowledge and experience is wide based, he cares for the student, he doesn't take his own subject overly too seriously, he's so flexible--he'll let you go off on a tangent in class, he's still trying different methods even though he's been teaching for so long, he seems to enjoy his students' success, fantastic professor.

A very organized person, in style of presenting material. He explains in detail all ideas.

Have him for Biology--very impressed with his lack of structure. He realizes that he has never taught this course before, but tries things and changes when they fall through and tries something else. Very liberal teacher even though he is a conservative man (this is understandable being that he is 64 years old). His main concern is exercises in a capacity to learn, but he is not forceful. He makes a very valid attempt to understand when people do not come up to his expectations. If there is a personal problem that is keeping them down, keeping the student from exercising his capacity, he tries to help you get through it. It all boils down to the fact that he understands that there are personal problems involved that keep a student from doing his best in school, and that is to be accounted for. I really appreciate the life he instills in things--really enjoy what he is doing. Tries to work things so that people really can enjoy it. Very good at making things understandable that don't seem practical, that otherwise seem meaningless. Guesto--great pains to show that concepts really are important, meaningful and applicable.

CODE NUMBER 2309 cont.

EXAMPLE OF VERBATIM RESPONSE (cont.)

He knows everything but is patient in explaining and he always answers questions. He allows questions during his lectures.

Goes out of his way to give all possible information on questions; interested in you as a person, as well as student; open-minded (quite a quality); expects a lot out of you--lectures well planned--outlined, easy to follow.

NEGATIVE

He is very nice as a person but he fails to understand your course problems and he doesn't explain in a way to make you understand either.

To strait forward--cut and dry in class--no personality--too factual.

PAGE 1 DATE -- 04/02/72 COURSE (POSITIVE) VARIABLE

Table with columns: CODE ID, RAW \$, SEX, FR, SO, JR, SR, BK, DN, LK, CA, CL, CO, OR, *GRK, IND, *FRATERNITIES, *SORORITIES, and SORORITIES. Rows list student IDs and corresponding counts for various categories.



PROFESSOR MOST CHOICES

		Total Coll- ege	Total Code # <u>2229</u>
M1	Presentations indicate material thoroughly understood-- always well prepared	183	..... 2
M2	Good rapport - relates well to students; establishes meaningful relationships with students	181	.....
M3	Has own style or educational approach - different, interesting, enjoyable.....	136	..... 8
M4	Patient - takes extra time and effort to help students..	115	.....
M5	Personality adds to course - good attitude.....	107	.....
M6	Takes interest in student development	96	.....
M7	Flexible - takes your interests and objectives into account.....	79	..... 6
M8	Relaxed hospitable environment for learning - not like a factory assembly line	72	.....
M9	Encourages input from students - student involvement..	54	.....
M10	Tolerates disagreement - never cuts you down for your opinions and ideas	35	.....
M11	Values high productivity - challenges class.....	33	.....
M12	Provides inspiration to student.....	32	.....
M13	Enjoys profession; takes it seriously	31	..... 4
M14	Puts contemporary problems into perspective - focuses on real concern of students.....	31	.....
M15	Interested in subject he is teaching.....	29	.....
M16	Empathic - aware of student problems.....	26	.....
M17	Reasonable tests - optional find, fair grades, no surprises, etc	26	.....
M18	Low pressure level - expectations of students realistic	23	.....
M19	A scholar - concerned with the understanding of truth	23	.....
M20	Discussion oriented - keeps discussion going but doesn't dominate	23	.....
M21	Allows personal freedom - freedom of expression.....	22	.....
M22	Knowledgeable in more than one area.....	20	.....
M23	Tells it like it is - doesn't beat around bush	18	.....
M24	Stimulates students - provokes thought.....	17	.....
M25	In command of course - knows what he's doing, where going, and how to get there.....	16	..... 1
M26	Makes expectations of students clear and precise.....	15	.....
M27	Admirable person.....	13	.....
M28	Well informed - "in tune" to college and community activities.....	12	.....
M29	A good listener - really tries to understand students..	12	..... 1
M30	Opens up to people	11	.....
M31	Helpful - gives good advice.....	10	.....

Professors Most Choices (continued) -2-

	Total Coll- ege	Total Code # <u>2229</u>
M32 Doesn't try to be an authority figure	9	....
M33 Concern for practicable application of facts	9	....
M34 Course well paced - not too fast; not too slow	8	....
M35 Has a good reputation on campus with students and professors	8	....
M36 Appearance pleasing to others	7	....
M37 Treats generalizations so they can be microscoped into specifics	6	....
M38 Initial experience provided a good foundation for further study	6	....
M39 Covers a variety of topics in course	6	....
M40 Never humiliates students in class	5	....
M41 Unprejudiced - accepts student appearance, dress, life style, etc	5	....
M42 Makes the abstract relevant	4	....
M43 Methodical	3	....
M44 Made a contribution towards choosing a major field of concentration	2	....
M45 Reasonable attendance policy - non-compulsory, etc.	2	....
M46 Creative - original ideas, appearance, etc	2	....
M47 Is a member of an ethnic group	1	....
M48 Hands out teacher evaluation form	1	....
M49 Not stuck on himself	1	....

PROFESSOR LEAST CHOICES

		Total Coll- ege	Total Code # <u>2229</u>
L1	No diversity in lectures--not pertinent, boring-- Puts you to sleep	97	.....7
L2	Generally lousy and/or irrelevant--do not like teaching style--have not learned anything.....	74	.....
L3	Tests unreasonable--ambiguous or material not covered or opinions (no right answer) or picky detail wrote, memorize	43	.....
L4	Rigid--closed minded--dogmatic at times	39	.....9
L5	Not really interested in students--phoney-always too busy	36	.....
L6	Always cuts you down--in class--on papers, etc., stifles.....	34	.....
L7	Conceited with an air of superiority.....	33	.....
L8	Sometimes on an ego trip--you have to walk on egg shells--so fascinated with self	31	.....
L9	Expects too much--goes too fast--assumes you know what is going on--and won't take time to explain.....	31	.....
L10	Antagonistic toward students--values, opinions, attitudes, long hair, dress, etc.--stifles.....	29	.....
L11	Never had him, but my friends don't like him	28	.....
L12	Course disorganized and/or unprepared	27	.....
L13	Grading picky--too specific, too hard, no flexibility..	27	.....
L14	Seems uninterested in students--material--maybe teaching itself.....	26	.....
L15	Humor or language offensive--either corny, or off- color, profane, anti-feminist, or something, irritating	26	.....
L16	Completely unable to communicate with him (her)	26	.....
L17	Defensive, insecure, or nervous around students, easy to shake up or get him off subject	22	.....2
L18	Most all professors irritating in one way or another. This one has a lot more than his share.....	21	.....1
L19	Poor discussion leader, disorganized or unprepared or dominates or suppresses, or forbids all together....	21	.....
L20	Plays favorites--unfair to non-majors or some other student category	21	.....
J21	Too often can't answer questions he should know seems unqualified to teach at Austin College-- Uninformed	20	.....
L22	Rambles--gets off subject on tangents	19	.....
L23	So ambiguous you never know what to expect. His approach does not make you learn	14	.....

Professor Least Choices (continued) -2-

	Total Coll- ege	Total Code # <u>2229</u>
L24 Have no respect for him as professor or person despicable	14	.....
L25 No complaints allowed--must agree with what is said or else	13	.....
L26 No depth--skims material and does not explain as should.....	11	.....
L27 Doesn't generate interest--you have to already be interested in the material	10	.....
L28 Dead Lecturer--can't communicate--detached or impersonal--"this is a recording".....	8	.....
L29 Never know where you stand--too few tests or indicators.....	8	.....
L30 Inexperienced and/or immature--does not know his own strengths and weaknesses.....	8	.....
L31 Quite ungraceful on own mistakes--never admits he is wrong	7	.....
L32 Forces students to learn for themselves--if anything is learned.....	7	.....
L33 Didn't like texts and/or assigned readings.....	5	.....
L34 Patronizing--like parent talking to child--talks down to you	5	.....
L35 Attendance policy unreasonable or unfair	5	.....
L36 Preaches--does not lecture--hung up with religion	4	.....
L37 Says a lot he can't back up--confuses students.....	4	.....
L38 Course didn't cover material it was supposed to cover.....	4	.....
L39 Was my advisor--really fouled me up.....	3	.....
L40 Distasteful personal appearance or image.....	2	.....

COURSE MOST CHOICES

		<u>Total Col- lege</u>	Total Code # <u>2229</u>
MA	Material itself compelling - challenging - worthwhile, interesting.....	194	.....
MB	Professor competent teacher - likable - makes the course - doesn't go too fast - explains till you get it.....	180	..... 8
MC	Practical - applies subject matter to relevant situations and problems.....	97	.....
MD	Good course - really enjoyed it.....	60	.....
ME	Good reading material.....	47	.....
MF	Liked the way course was structured or organized.....	45	..... 4
MG	Provides opportunity to work on things you choose or initiate.....	41	.....
MH	Professor helped by making material more interesting and/or understandable.....	30	.....
MI	Stimulating lectures - well presented.....	30	.....
MJ	Makes you think and/or reevaluate your ideas about the subject matter.....	29	.....
MK	Lots of two-way interaction between students and professor.....	26	..... 6
ML	Different - represents an interesting change of pace for me.....	26	.....
MM	Tests and/or final exam good learning experience.....	21	.....
MN	Projects good - gets you into the real world.....	16	.....
MO	Multidisciplinary - covers related material from other fields - learning transfer to other courses....	15	.....
MP	You work hard but get something out of it.....	14	.....
MQ	Good reputation - never taken the course.....	13	.....
MR	Professor keeps up with developments in his field.....	6	.....
MS	Professor doesn't try to sell a point of view - his impartiality lets you make decisions on your own..	4	..... 4

COURSE LEAST CHOICES

		<u>Total Col- lege</u>	<u>Total Code #</u> 2229
LA	I dislike this course because of the Professor	66	....
LB	Course was a "blow-off" - too simple; too much review, etc.....	58	....
LC	Boring course - dull subject; no connection between lectures and text	51	.... 5
LD	Not a good course - not the course described in catalogue; too much busy work.....	34	....
LE	Course lacks any practicable application.....	30	....
LF	Did not like text and/or choice of literature - outdated	30	....
LG	Material presented in uninteresting manner....	29	....
LH	Class too large - almost no student, teacher.. interaction.....	28	.... 6
LI	Course needs redesigning - almost no organi- zation, planning, or structure.....	27	....
LJ	Poor tests - too long; too much emphasis on pop tests or correct answers; covers too much material; too much trivia, etc.....	24	....
LK	Too much is expected of me in too short a time	22	....
LL	This course should not be required	21	....
LM	Professor lacks interest in course; no enthusiasm, bad attitude.....	19	.... 9
LN	Professor doesn't communicate or explain subject well.....	19	....
LO	Not enough emphasis on the fundamentals of course	18	....
LP	Too much pressure - standards too high; course requires too much time	17	....
LQ	Course is hard - professor needs to be more helpful and understanding of students.....	16	....
LR	This course is designed for those majoring in the subject - another course for non-majors is needed.....	13	....
LS	I didn't learn anything - just memorize; can't remember anything	13	....
LT	Material too detailed - over students' heads ..	12	.... 2
LU	Course offered too early; meets too often; class too long.....	12	....
LV	Professor doesn't like to help students having trouble - doesn't make himself available for help	11	....
LW	Course doesn't demand enough of students	10	....

Course Least Choices (continued)

		<u>Total</u> <u>Col-</u> <u>ege</u>	<u>Total</u> <u>Code</u> <u>#2229</u>
LX	Professor expects students to have a good background in subject - I'm not interested in subject.....	9	.....
IY	Professor indicates that he does not thoroughly understand material he is teaching	8	.....
LZ	Professor cuts you down - bad atmosphere.....	8	.....
LZA	Professor pushes his opinion upon students.....	8	.....
LZB	Professor and course have bad reputation on campus.....	8	.....
LZC	This course will not enhance the student's personal development	8	..... 8
LZD	Professor hard to relate to - stuck on himself...	7	.....
LZE	Too abstract - could not understand the subject..	6	.....
LZF	Professor does not clearly state what he expects from students.....	5	.....
LZE	A pre-requisite should be required to take this course	3	.....
LZF	Professor not up-to-date on latest developments in field.....	2	.....
LZG	Professor lacks confidence in himself.....	2	..... 2

FACULTY EVALUATION FORM

- I. **Introduction:** This questionnaire is designed to assist you in registering your reactions to the student opinions as noted in the materials provided in the first sections of this packet. Please do not sign your name anywhere on this form - your code number is listed above so that follow-up requests for completion can be made and so that no one handling this questionnaire will know whose responses they are tabulating. Only the experimenter will have access to the code and his behavior is regulated by strict legal and ethical codes which forbid him from compromising sensitive data to the possible detriment or discomfort of those providing the data.
- II. **Instructions:** Please respond to the following statements by circling that alternative which most closely approximates your feelings about the matter in question SD (Strongly Disagree), D (Disagree), ? (Uncertain, Don't Know or No Opinion), A (Agree), and SA (Strongly Agree).
1. I don't care who it is, it makes me nervous knowing anyone has information like this SD D ? A SA
 2. I find this information very informative..... SD D ? A SA
 3. I didn't learn anything about myself or my courses from this that I didn't already know SD D ? A SA
 4. This information helps me evaluate myself SD D ? A SA
 5. This data taking should be stopped SD D ? A SA
 6. I was surprised that I didn't get more negative recommendations SD D ? A SA
 7. I was surprised that I didn't get more positive recommendations SD D ? A SA
 8. I would like to get confidential information like this every year SD D ? A SA
 9. I don't understand the computer printouts SD D ? A SA
 10. I wouldn't mind if this information were made public. SD D ? A SA
 11. I think I can improve my teaching due to my receiving this information..... SD D ? A SA
 12. I'm not sure the administration would be able to view this information in the proper perspective SD D ? A SA
 13. Student opinions are important to me SD D ? A SA
 14. I wouldn't mind if the administration used this information as a part of their evaluation of my performance or my effectiveness as a teacher..... SD D ? A SA
 15. I don't believe this information reflects the opinions and attitudes of students majoring in my discipline SD D ? A SA
 16. Student comments make the student recommendations of me and my courses more understandable SD D ? A SA
 17. I suspect students recommend easy courses and professors..... SD D ? A SA

- 18. It's not really clear what the college expects
of me as a teacher SD D ? A SA
- 19. I find this whole experience degrading SD D ? A SA
- 20. No matter how difficult and complicated, a correction
factor should be calculated so that all scores for
professors and courses could be compared..... SD D ? A SA
- 21. Wouldn't really be interested in more precise
information just to be better able to compare
myself with others SD D ? A SA
- 22. The choice scores and student comments do not
provide enough basis for any kind of corrective
action on my part SD D ? A SA
- 23. The student comments constitute the best information
in the whole "package"..... SD D ? A SA
- 24. Student comments are useless to me SD D ? A SA

III. Please check the alternative below which most nearly reflect your feelings about the value of student opinion:

- 1. Completely worthless - students are not qualified to adequately judge such matters - their opinion is insufficient and unnecessary for professor evaluation.
- 2. Almost Completely Worthless
- 3. Mostly Worthless
- 4. Of some value but very little compared with other factors
- 5. Worth about equal the consideration given other factors - necessary but insufficient for valid professor evaluation
- 6. Of some value - probably more so than any other factors
- 7. Quite valuable
- 8. Almost completely valuable and relevant
- 9. Completely valuable and relevant in the evaluation of professors - without student opinion, other factors don't matter. It is necessary and sufficient for evaluation.

IV. Your comments are earnestly solicited. (Please Use Back of Sheet If Necessary)

APPENDIX D (cont.)

S's ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	p ¹¹
14. Verbatim Coded	4 4	7 1	8 4	11 13	3 6	3 3	11 5	11 7	14 19	3.543	Not Sig.
15. Verbatim Coded	3 3	6 10	16 7	7 5	1 2	3 4	9 10	19 14	8 7	0.507	Not Sig.
16. Verbatim Coded	0 1	3 4	8 7	18 11	4 2	3 6	3 5	11 13	22 13	2.622	Not Sig.
17. Verbatim Coded	4 0	17 13	9 9	3 5	0 1	3 3	21 13	12 12	3 6	2.523*	Not Sig.
18. Verbatim Coded	4 2	20 14	0 4	6 7	3 1	3 3	24 16	3 7	9 8	2.902*	Not Sig.
19. Verbatim Coded	9 5	16 17	6 5	2 0	0 1	3 3	25 22	9 8	2 1	0.212*	Not Sig.
20. Verbatim Coded	6 0	6 8	14 11	4 7	2 1	4 4	12 8	18 15	6 8	0.991*	Not Sig.
21. Verbatim Coded	0 2	7 8	6 8	17 5	3 4	3 4	7 10	9 12	20 9	4.784	Not Sig.
22. Verbatim Coded	1 0	12 8	8 6	11 9	1 4	3 4	13 8	11 10	12 13	0.190	Not Sig.
23. Verbatim Coded	0 1	3 6	9 9	13 10	8 1	3 4	3 7	12 13	21 11	4.416	Not Sig.
24. Verbatim Coded	14 8	17 17	1 1	1 0	0 0	3 4	31 25	4 6	1 0	1.679*	Not Sig.

¹ Subjects² Strongly Disagree³ Disagree⁴ Undecided or No Opinion⁵ Agree⁶ Strongly Agree⁷ No Response or Refused⁸ Strongly Disagree & Disagree⁹ Undecided & No Response¹⁰ Agree & Strongly Agree¹¹ Probability or Level of Significance

* Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

APPENDIX E

Code Number and Comments

2201 - Since there was only one response on my teaching (quite understandable since I normally don't teach courses), I am unable to answer many of the questions.

2308 - No comments.

2221 - I was flattered but baffled by the kind comments students made.

2205 - Certain aspects need more control to make study more valid; case in point: 20 students off campus when the data was collected had the best possibility of evaluating me. Hope you continue and refine the instrument.

2204 - I would like to see responses broken down by concentrators and non-concentrators. I feel that at A. G. with its open and innovative academic program, this seems as a useful tool. We should be "objective" about ourselves and our professional performance to the extent that broader use of the instrument should be made. I have not considered the Birkman analysis an invasion of my privacy--it was widely shared. By the same token, I do not consider this analysis an invasion of my classroom "privacy,"--and feel that these results could be shared for mutual benefit. I checked number 5 in the alternatives as the one that most described my feeling. It was not too close. I feel that the instrument is quite valuable, but that other measurements need to be taken to round out the picture. (The patient is not always the best doctor in analysis.) I hope you continue the analysis and continue to refine it.

2203 - I am a perfectionist and am inclined to have a poor self-image. This evaluation really gave me an ego massage. Apparently, I'm a lot more successful than I had thought. I think I will be an even better teacher next year because the negative side of this evaluation will help me to improve my weak points. I appreciate you making this evaluation possible. I represents a lot of time and hard work. Thank you.

2202 - We are given ratings and comments at both ends of the spectrum (most popular-least popular) but I would like to hear from students who are not committed in either direction. Ideally, I would like the evaluation of all of my students to be included.

2301 - The computer print-out fails to give much meaningful information, and could be rather easily misinterpreted. Since you have gone to the trouble of listing professors in descending order of choice (both positive and negative) rather than by code number sequence one would assume that you intended to point out who was the most or least recommended by the students. Even a cursory treatment of the raw data would be more informative and could easily be done on the computer with the information already coded. I suggest that a ratio of positive to negative responses reduced

APPENDIX E (cont.)

Code Number and Comments

2301 (cont.) - to percentages would yeild a better measurement of a faculty member's standing with students than raw data as you have projected it. Applying this method to your data the following few examples demonstrate my point (values are estimated).

<u>Your rank ordering positive</u>	<u>Code ID</u>	<u>Percentage Positive Responses</u>
1	2138	72%
2	2221	96%
3	2213	95%
4	2217	79%
5	2242	90%
38	2111	95%
39	2108	20%
40	2304	94%
41	2208	93%

With a little more effort you might check the possibilities of sexist bias of faculty as perceived by students through a comparision of response by sex to the ratio of sex in a faculty member's current year class enrolment. This sort of study would be infinitely more rewarding than a listing of preferences of Greek organizations, dormitory residency, etc. I believe that these recommendations are in line with the suggestions made by our computer utliliazation expects on how to use this sophisticated tool.

2309 - This individual said that student comments are quite valuable ". . .but obtained directly from students rather than in this form."

2310 - No comments.

2304 - (1.) Your classification of students largely not useful, i.e., dorm, fraternity, etc. (2) Response should be limited to current term. Otherwise one doesn't know how to evaluate students response. (3) I received a response for a course I have never taught.

2103 - (1) Students are our "consumers" so we should pay stock to this fact. (2) Faculty should not be totally submissive to demands but should be aware of opinion and continusally strive to perfect the teaching-learning process.

2206 - I was criticized rather severly for courses I haven't even taught at Austin College. This type of evaluation is prying, just as if one prof were going around grilling students about another prof. It is unethical and violates the student-professor relationship. (This comment was signed, but the signature has been deleted by the experimenter.)

2226 - No comments.

APPENDIX E (cont.)

Code Number and Comments

- 2138 - I would enjoy receiving the narrative portion of the comments.
- 2209 - (Concerning question number 20) I seriously doubt the possibility or feasibility of a reliable correction factor. The professors will compare themselves and their courses in the others anyway. The questionnaire and results of evaluation at least seem to be strying to get us to do more what students want. Perhaps this helps some and inhibits others?! Too many variables--
- 2104 - No comments.
- 2211 - Good work David - and courageous work! This is a real contribution to Austin College! Thank You! (I do wish we could include some sort of "Bascoe Unit" factor. . ."
- 2105 - Please send student comments.
- 2212 - Use a ratio of:
$$\frac{\text{student exposure in number and Number of years here}}{\text{various student responses positive, negative}}$$
- 2312 - No comments.
- 2101 - No comments.
- 2320 - No comments.
- 2124 - The fact that you send me comments about my performance in a course I have never taught makes me question the accuracy of the rest of the information.
- 2240 - (1.) What do the numbers 339 signify on the History of Jazz comments?
 (2.) I consciously discourage students from taking Music 11 - in fact it is a department policy. Those who do not get the message find they are in the wrong course by the very demands of skills in music which they do not possess.
 (3.) I find the information interesting but of little value to me or my course structures.
 (4.) Was applied music ever considered as course work? If not, why not? Students receive course credit for it.
 (5.) Lack of negative comments may help the ego but is of no assistance in growth.
 (6.) Teaching effectiveness is poorly measured when it depends on general "recommendations" by the student body.
 (7.) The teachers who most affected my professional career would probably

APPENDIX E (cont.)

Code Number and Comments

2240 (cont.) - have not received my recommendation when I was under their instruction. It appears as though the type of teacher and the courses he is teaching interrelate too closely for the survey to be of any real help.

2239 - Very valuable information. Excellent survey.

2122 - The number of responses relating to specific courses appears small and the number of negative responses I received appears too small in the general response section. This instrument is a significant improvement over past sampling and I think will lead to positive changes in student-teacher relationships. However, some faculty will (and have) reacted very defensively - some perhaps with cause. The instrument appears to measure extremes (with the exception of student comments) which I feel is a short-coming in evaluation.

2121 - No comments.

2234 - The responses should be limited to actual experience in a course. A student's bad (or good) opinion of a professor based on hearsay or experience with him on a committee or as an administrator is completely worthless in evaluating his teaching ability.

2233 - No comments.

2303 - Would like to receive student comment sheet.

2232 - No comments.

2230 - The problem is not the value of student opinion, the problem is the instrument used. This evaluation gets responses only from those who react strongly to your teaching, positively or negatively. Moreover it doesn't distinguish between hearsay or brief encounters and experiences of your courses. The comments are too brief to be helpful - you merely learn that the student likes or dislikes you. The superficiality is indicated by the fact that I received comments on a number of courses I don't teach, some even in departments where I do not teach. The wording of this evaluation illustrates that more care should be taken. E.g., question 22--I think the comments provide some information that will help me to improve my teaching but that information is not nearly precise enough for corrective action. But question 22 is worded ". . .for any kind of corrective action. . ." I would logically, love to argue. But I do not want to say the form is adequate, so I marked disagree. When you must do this, the form is faulty.

APPENDIX E (cont.)

Code Number and Comments

2106 - . . . a far more sophisticated (weighted) calculation might be valuable.

2107 - There were not enough students evaluating me since I only taught a Jan-Term with 9 students. If I had taught a regular course this info would be very helpful. (signature deleted by the experimenter.)

2213 - Since my own scale of professional "success" rests almost wholly with colleague evaluation (when A. C. does not tabulate), my very flattering student profile leaves me as ambivalent as ever-- is it really my ability or only my personality which assists them in comprehending and enjoying and working hard in my courses? I could never be sure of this at my previous job either where I was "gembook professor of the year" for two out of five years! So what? My book, on the other hand is a scholarly and sales flop!!

2316 - I would like to see the individual student comments.

2215 - In format, this packet of information is much "better" (usable, meaningful, understandable) than was last years computer print-out. I have no objection to the project's continuation with proper safeguards for confidentiality always applied.

2317 - No comments.

2216 - No comments.

2217 - No comments.

2318 - The positive and negative course evaluations are too ambiguous to be of much help. . . it would be useful to know how students reacted positively or negatively who--never had the course in question--just "finished" the course of "finished" it some semesters ago--are reacting partly on the basis of factors (relitively) unrelated to the course (personal dislike, experience in other courses with same prof., etc.) are majors in various fields. The breakdown by sex, dorm, frat, etc., is really somewhat useless to me--though I recognize that it might be relevant to your own purposes in formulating the study.

2218 - Appreciated the effort maintained in deepening the interviews open and student initiated. If there are other factors which the deans and other administrators use in evaluating faculty members, they should also be included on the student questionnaire to get multilpe input. Wish the students were broken down by majors, grade-point averages, urban or rural backgrounds, and goal orientations as well as by male, female, fraternity, etc.

2219 - No comments.

APPENDIX E (cont.)

Code Number and Comments

2111 - I would like very much to have the graduate students included in this study because this is where we have our real contact with students. (signature deleted by experimenter.)

2243 - No comments.

2313 - I have to question the validity of the whole process since my name is associated with at least one course I have never taught.

2306 - No comments.

2245 - My main objection to this questionnaire is that it really does not help one change or correct his teaching performance. One knows that a certain number of students "recommend" him and others "don't recommend" but he has no idea what is their criteria for "recommending" a teacher nor does he know the make-up of the groups themselves. For example if he knew percentagely that majors recommended him and non-majors didn't then he might conclude he needs to make the course more appealing to non-majors. As it is he doesn't know which way to go. Another case would be if his advises recommended him but his students didn't this might indicate something to him and give him information for evaluating his teaching. As the information stands I find it so general as to be useless in helping me correct my teaching. Another problem is that if one taught a large class/freshman and had either very good or a very bad course this would affect the print-out for the next few years making judging of improvement or non-improvement almost impossible. I think I would welcome and find useful a student evaluation that provided foundations that I could make use of in evaluating and improving my teaching.

2244 - No comment.

2305 - There is no way one can judge whether one has improved his course because no distinction is made between the same course taught in different semesters. For example it's possible the 25 negative choices in a course could be from course X in Fall 1971 and anot from the same course taught in Fall 1972.

2242 - Eventhough you try to achieve anonimiety on this, I have been able to identify several of the student comments because of the phrasing. Since I have fairly detail feedback in most courses and several types of student evaluations of my courses I did not find this to be particularly helpful. It confirmed the trends already will be established both positive and negative. I question the particular value of this "out of the situation" type evaluations. It has its value but like every piece of "neutral" data it can be used for many purposes both constructive and destructive.

2125 - No comments.

APPENDIX E (cont.)

Code Number and Comments

2241 - I appreciate the purpose of such an effort as this and cannot fully appreciate the energy and concern of which such an effort requires of David Heyn and his assistants. I believe some correction or comparative factors would be beneficial, a wider range of courses and students within the same course would be better.

2220 - Re: Items 11 and 23. Response to 11 based on response to 23 in my case. Items 20 and 21. Responses based on non-publicity of information except in same form as this. I'm not necessarily interested in comparing myself with others (but perhaps knowing the three to five most positive faculty might be useful). But I would be interested in positive "45" as based on a quotient of 150 or 750 student contacts. Along this line, I suspect it is of little value to get student recs on the basis of hearsay (see negative comments), rather suggest that it is not necessary perhaps to fill in all the blanks under the positive and negative recs. The data figure that pleased me most (of course, on the positive side) was that I was second among the entire faculty in positive responses from seniors.

2322 - I didn't teach Chem. 31 or 32 which you had listed as course choices. Physical Science 13 and 14 was the same course given fall and spring. I thought the course went very well in the fall and this seemed to be backed by a student evaluation which I passed out. I felt that the course did not go well in the spring. I am unclear why it went well one semester and not the second since it was the same course. Unfortunately your data doesn't help this sort out.

223 - No comments.

2222 - No comments.

2118 - No comments.

2117 - Were there any positive statements or just negative ones?

2229 - Student opinion is valuable, but this particular method of getting it is, in my opinion almost completely worthless. The questions are insane, loaded, restricted and/or inadequate--a waste of a lot of time Bunk! Bunk! Bunk! (signature deleted by experimenter.)

2227 - In qualification of questions marked: Explanations of methods and original questionnaire (like Heyn's 6/16/72) are essential to interpreting this data. Last year, without it, the data was unclear (9). For what this method can show, it appears reliable. As extreme reactions it tends to show the kind of information that I already have. (2, 3, 8) Although this is valuable, if well done, as a part of evaluative judgements by myself or others. It would be very inadequate as the only are major instrument. A survey of students in a single professors courses would give another range of information for instance (10, 14, 20, 21).

APPENDIX E (cont.)

Code Number and Comments

2116 - Although helpful, I do not feel it is an adequate sample of the students with whom I have contact.

2302 - No comments.

2115 - The confidentiality of this research is very suspect. Four courses were listed on my ratings which I have never taught. This prompts me to wonder how accurate the results are and how well the interviews were conducted. Interesting project. It does provide some helpful evaluations from student perspectives. Good luck.

2113 - No comments.

2323 - No comments.

APPENDIX F (cont.)

S's Age ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	p ¹¹
14. 39-	4	4	5	11	5	3	8	8	16		
40+	4	4	7	13	4	3	8	10	17	0.118	Not Sig.
15. 39-	2	8	11	7	1	3	10	14	8		
40+	4	5	15	5	2	4	9	19	7	0.744	Not Sig.
16. 39-	0	4	4	17	2	5	4	9	19		
40+	1	3	11	12	4	4	4	15	16	1.626*	Not Sig.
17. 39-	1	14	6	7	1	3	15	9	8		
40+	3	16	12	1	0	3	19	15	1	7.295*	Not Sig.
18. 39-	3	13	3	8	2	3	16	6	10		
40+	3	21	1	5	2	3	24	4	7	2.400*	Not Sig.
19. 39-	6	18	4	1	0	3	24	7	1		
40+	8	15	7	1	1	3	23	10	2	0.751*	Not Sig.
20. 39-	3	6	12	6	2	3	9	15	8		
40+	3	8	13	5	1	5	11	18	6	0.625	Not Sig.
21. 39-	1	8	6	11	3	3	9	9	14		
40+	1	7	8	11	4	4	8	12	15	0.388	Not Sig.
22. 39-	0	8	9	10	2	3	8	12	12		
40+	1	12	5	10	3	4	13	9	13	1.528	Not Sig.
23. 39-	0	6	7	12	4	3	6	10	16		
40+	1	3	11	11	5	4	4	15	16	1.268*	Not Sig.
24. 39-	8	21	0	0	0	3	29	3	0		
40+	14	13	3	1	0	4	27	7	1	2.542*	Not Sig.

¹Subjects by age (39 & under and 40 or over)

²Strongly Disagree

³Disagree

⁴Undecided or No Opinion

⁵Agree

⁶Strongly Agree

⁷No Response

⁸Strongly Disagree & Disagree

⁹Undecided & No Response

¹⁰Strongly Agree & Agree

¹¹Probability or Level of Significance

*Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

APPENDIX G (cont.)

S's Status ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	P ¹¹
14. Tenure	4	4	6	13	4	3	8	9	17		
No Tenure	4	4	6	11	5	3	8	9	16	0.015	Not Sig.
15. Tenure	4	4	13	7	2	4	8	17	9		
No Tenure	2	9	13	5	1	3	11	16	6	1.089	Not Sig.
16. Tenure	1	3	9	14	2	5	4	14	16		
No Tenure	0	4	6	15	4	4	4	10	19	0.909*	Not Sig.
17. Tenure	2	17	10	2	0	3	19	13	2		
No Tenure	2	13	8	6	1	3	15	11	7	3.400*	Not Sig.
18. Tenure	4	21	1	4	1	3	25	4	5		
No Tenure	2	13	3	9	3	3	15	6	12	5.768	Not Sig.
19. Tenure	8	14	6	2	1	3	22	9	3		
No Tenure	6	19	5	0	0	3	25	8	0	3.236*	Not Sig.
20. Tenure	3	9	13	4	1	4	12	17	5		
No Tenure	3	5	12	7	2	4	8	16	9	1.958	Not Sig.
21. Tenure	1	6	9	11	3	4	7	13	14		
No Tenure	1	9	5	11	4	3	10	8	15	1.739	Not Sig.
22. Tenure	0	11	5	11	3	4	11	9	14		
No Tenure	1	9	9	9	2	3	10	12	11	0.821	Not Sig.
23. Tenure	1	5	11	11	2	4	6	15	13		
No Tenure	0	4	7	12	7	3	4	10	19	2.510	Not Sig.
24. Tenure	11	15	3	1	0	4	26	7	1		
No Tenure	11	19	0	0	0	3	30	3	0	2.871*	Not Sig.

¹ Subjects having tenure & without tenure

² Strongly Disagree

³ Disagree

⁴ Undecided or No Opinion

⁵ Agree

⁶ Strongly Agree

⁷ No Response

⁸ Strongly Disagree & Disagree

⁹ Undecided & No Response

¹⁰ Strongly Agree & Agree

¹¹ Probability or Level of Significance

* Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

APPENDIX H (cont.)

S's Years ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	P ¹¹
14. x-5	5	4	5	13	4	5	9	10	17		
6+	3	4	7	11	5	1	7	8	16	0.130	Not Sig.
15. x-5	1	10	13	6	1	5	11	18	7		
6+	5	3	13	6	2	2	8	15	8	0.442	Not Sig.
16. x-5	0	6	6	15	3	6	6	12	18		
6+	1	1	9	14	3	3	2	12	17	1.665*	Not Sig.
17. x-5	1	13	10	6	1	5	14	15	7		
6+	3	17	8	2	0	1	20	9	2	4.991*	Not Sig.
18. x-5	1	15	4	8	3	5	16	9	11		
6+	5	19	0	5	1	1	24	1	6	9.148	.05
19. x-5	3	21	6	1	0	5	24	11	1		
6+	11	12	5	1	1	1	23	6	2	1.460*	Not Sig.
20. x-5	3	7	13	7	2	5	9	18	9		
6+	4	7	12	4	1	3	11	15	5	1.249	Not Sig.
21. x-5	1	7	7	12	4	5	8	12	16		
6+	1	8	7	10	3	2	9	9	13	0.427	Not Sig.
22. x-5	0	9	9	11	2	5	9	14	13		
6+	1	11	5	9	3	2	12	7	12	2.442	Not Sig.
23. x-5	0	5	8	12	6	5	5	13	18		
6+	1	4	10	11	3	2	5	12	14	0.168	Not Sig.
24. x-5	10	19	1	1	0	5	29	6	1		
6+	12	15	2	0	0	2	27	4	0	1.104*	Not Sig.

¹ Subjects years at Austin College

² Strongly Disagree

³ Disagree

⁴ Undecided or No Opinion

⁵ Agree

⁶ Strongly Agree

⁷ No Response

⁸ Strongly Disagree & Disagree

⁹ Undecided & No Response

¹⁰ Strongly Agree & Agree

¹¹ Probability or Level of Significance

* Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

APPENDIX I (cont.)

S's Rank ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	P ¹¹
14. Inst-Asst	3	3	6	9	6	3	6	9	15		
Asso-Full	5	5	6	15	3	3	10	9	18	0.547	Not Sig.
15. Inst-Asst	3	7	11	5	1	3	10	14	6		
Asso-Full	3	6	15	7	2	4	9	19	9	0.686	Not Sig.
16. Inst-Asst	0	3	4	14	4	5	3	9	18		
Asso-Full	1	4	11	15	2	4	5	15	17	1.312*	Not Sig.
17. Inst-Asst	2	13	5	6	1	3	15	8	7		
Asso-Full	2	17	13	2	0	3	19	16	2	5.241*	Not Sig.
18. Inst-Asst	3	13	2	7	2	3	16	5	9		
Asso-Full	3	21	2	6	2	3	24	5	8	0.938	Not Sig.
19. Inst-Asst	5	18	4	0	0	3	23	7	0		
Asso-Full	9	15	7	2	1	3	24	10	3	2.852*	Not Sig.
20. Inst-Asst	2	4	11	7	2	4	6	15	9		
Asso-Full	4	10	14	4	1	4	14	18	5	3.927	Not Sig.
21. Inst-Asst	1	9	5	8	4	3	10	8	12		
Asso-Full	1	6	9	14	3	4	7	13	17	1.871	Not Sig.
22. Inst-Asst	1	10	6	8	2	3	11	9	10		
Asso-Full	0	10	8	12	3	4	10	12	15	0.753	Not Sig.
23. Inst-Asst	0	4	7	10	6	3	4	10	16		
Asso-Full	1	5	11	13	3	4	6	15	16	0.676	Not Sig.
24. Inst-Asst	10	17	0	0	0	3	27	3	0		
Asso-Full	12	17	3	1	0	4	29	7	1	1.962*	Not Sig.

¹ Subjects' Rank at Austin College

² Strongly Disagree

³ Disagree

⁴ Undecided or No Opinion

⁵ Agree

⁶ Strongly Agree

⁷ No Response

⁸ Strongly Disagree & Disagree

⁹ Undecided & No Response

¹⁰ Strongly Agree & Agree

¹¹ Probability or Level of Significance

* Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

APPENDIX J (cont.)

S's Area ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	P ¹¹
20. Hum.	3	9	6	6	1	4	12	10	7		
S.S.	2	3	10	3	1	1	3	12	3		
P.S.	1	2	9	2	1	3	3	12	3	5.332*	
21. Hum.	0	8	3	10	5	3	8	6	15		
S.S.	0	4	6	8	1	1	4	7	9		
P.S.	2	3	5	4	1	3	5	8	5	3.937	
22. Hum.	1	7	5	10	3	3	8	8	13		
S.S.	0	9	3	6	1	1	9	4	7		
P.S.	0	4	6	4	1	3	4	9	5	5.655	
23. Hum.	1	3	5	12	6	2	4	7	18		
S.S.	0	3	8	6	2	1	3	9	8		
P.S.	0	3	5	5	1	4	3	9	6	4.784*	
24. Hum.	13	11	2	1	0	2	24	4	1		
S.S.	5	13	1	0	0	1	18	2	0		
P.S.	4	10	0	0	0	4	14	4	0	2.476*	

¹ Subjects' Area At
Austin College

² Strongly Disagree

³ Disagree

⁴ Undecided or No Opinion

⁵ Agree

⁶ Strongly Agree

⁷ No Response

⁸ Strongly Disagree & Disagree

⁹ Undecided & No Response

¹⁰ Strongly Agree & Agree

¹¹ Probability or Level of
Significance

* Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

APPENDIX L

RAW DATA AND CHI SQUARE CONTINGENCY TESTS FOR FACULTY QUESTIONNAIRE RESPONSES
BY FACULTY DEGREES (BACHELOR'S, MASTER'S, DOCTORATE)

S's Degree ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	P ¹¹
1. Bac., Mas. Doc.	6 10	8 22	2 7	2 2	0 2	1 5	14 32	3 12	2 4	0.687*	Not Sig.
2. Bac., Mas. Doc.	1 4	1 8	4 6	11 20	1 5	1 5	2 12	5 11	12 25	1.733*	Not Sig.
3. Bac., Mas. Doc.	1 0	11 23	2 5	4 10	0 5	1 5	12 23	3 10	4 5	1.283*	Not Sig.
4. Bac., Mas. Doc.	1 2	0 6	1 8	13 21	3 5	1 6	1 8	2 14	16 26	5.258*	Not Sig.
5. Bac., Mas. Doc.	4 11	12 18	2 11	0 1	0 2	1 5	16 29	3 16	0 3	3.812*	Not Sig.
6. Bac., Mas. Doc.	1 0	7 16	5 17	3 8	2 1	1 6	8 16	6 23	5 9	1.505*	Not Sig.
7. Bac., Mas. Doc.	2 1	8 19	6 16	2 6	0 0	1 6	10 20	7 22	2 6	0.664*	Not Sig.
8. Bac., Mas. Doc.	0 3	3 3	2 11	9 20	4 6	1 5	3 6	3 16	13 26	2.062*	Not Sig.
9. Bac., Mas. Doc.	3 10	13 27	0 1	1 3	0 2	2 5	16 37	2 6	1 5	0.536*	Not Sig.
10. Bac., Mas. Doc.	3 10	3 13	3 7	7 12	1 1	2 5	6 23	5 12	8 13	1.829	Not Sig.
11. Bac., Mas. Doc.	2 3	1 9	3 13	11 15	1 2	1 6	3 12	4 19	12 17	4.298	Not Sig.
12. Bac., Mas. Doc.	1 4	6 13	3 7	7 15	1 4	1 5	7 17	4 12	8 19	0.118	Not Sig.
13. Bac., Mas. Doc.	0 0	0 1	0 1	11 25	7 16	1 5	0 1	1 6	18 41	1.213*	Not Sig.

¹ Subjects' Degree² Strongly Disagree³ Disagree⁴ Undecided or No Opinion⁵ Agree⁶ Strongly Agree⁷ No Response⁸ Strongly Disagree & Disagree⁹ Undecided & No Response¹⁰ Strongly Agree & Agree¹¹ Probability or Level of Significance

* Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

APPENDIX L (cont.)

S's Degree ¹	SD ²	D ³	? ⁴	A ⁵	SA ⁶	NR ⁷	SD&D ⁸	?&NR ⁹	SA&A ¹⁰	Chi ²	p ¹¹
14. Bac., Mas. Doc.	3 5	1 7	5 7	5 19	4 5	1 5	4 12	6 12	9 24	0.327	Not Sig.
15. Bac., Mas. Doc.	2 4	3 10	9 17	3 9	1 2	1 6	5 14	10 23	4 11	0.122	Not Sig.
16. Bac., Mas. Doc.	0 1	2 5	5 10	7 22	3 3	2 7	2 6	7 17	10 25	0.053*	Not Sig.
17. Bac., Mas. Doc.	3 1	8 22	5 13	2 6	0 1	1 5	11 23	6 18	2 7	0.567*	Not Sig.
18. Bac., Mas. Doc.	3 3	7 27	2 2	4 9	2 2	1 5	10 30	3 7	6 11	0.638*	Not Sig.
19. Bac., Mas. Doc.	5 9	10 23	3 8	0 2	0 1	1 5	15 32	4 13	0 3	1.675*	Not Sig.
20. Bac., Mas. Doc.	3 3	2 12	7 18	4 7	1 2	2 6	5 15	9 24	5 9	0.503	Not Sig.
21. Bac., Mas. Doc.	0 2	6 9	4 10	4 18	4 3	1 6	6 11	5 16	8 21	0.625	Not Sig.
22. Bac., Mas. Doc.	1 0	6 14	4 10	6 14	1 4	1 6	7 14	5 16	7 18	0.471	Not Sig.
23. Bac., Mas. Doc.	0 1	1 8	8 10	6 17	3 6	1 6	1 9	9 16	9 23	2.378*	Not Sig.
24. Bac., Mas. Doc.	8 14	10 24	0 3	0 1	0 0	1 6	18 38	1 9	0 1	2.450*	Not Sig.

¹Subjects' Degree²Strongly Disagree³Disagree⁴Undecided or No Opinion⁵Agree⁶Strongly Agree⁷No Response⁸Strongly Disagree & Disagree⁹Undecided & No Response¹⁰Strongly Agree & Agree¹¹Probability or Level of Significance

*Eventhough cells were combined, one or more expected frequency cells were less than 5.0.

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VITA

David Reed Heyn was born January 9, 1933, in Dallas, Texas. After graduation from Woodrow Wilson High School in 1950, he attended Texas A & M College until 1952. He served in the U. S. Naval Air Reserve as an instructor of radio navigational aids. He attended Austin College for one year in 1955 but received his B. A. degree in 1958 from the University of Texas with a double major in Psychology and Philosophy and his M. A. degree in 1959 in Social Psychology with a Management minor. After two years as a Training Specialist at the Port of New York Authority, he taught Psychology and Sociology at Washington and Jefferson College in Washington, Pennsylvania. He returned to the University of Texas in 1965 to do advanced work in Sociology and Curriculum and Instruction. During this time, it was discovered that he suffered from Multiple Sclerosis. In 1965, he was employed by Austin College and now holds the position of Associate Professor of Sociology and Psychology. He received his Ph D from the University of Texas in 1969. He is married to the former Sena Elizabeth Brown and had two daughters, Stefanie and Cynthia.

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