

**A STUDY OF THE EFFECTS OF INTERPERSONAL
VALUES UPON ACADEMIC EVALUATION**

ROBERT RAYMOND BERBERICH

A Study of the Effects of Interpersonal Values
Upon Academic Evaluation

An Abstract
Presented to
the Graduate Council of
Austin Peay State University

In Partial Fulfillment of
the Requirements for the Degree
Master of Arts

by
Robert Raymond Berberich
August 1972

ABSTRACT

This reaearch investigated the relationship between values and final grades at Austin Peay State University. More specifically this study investigated value similarity and dissimilarity between students and instructors and the possible effects of value compatibility upon final course grades. Gordon's Survey of Interpersonal Values served as the measurement device used in determining the extent of similarity or dissimilarity between a sample of thirty-two faculty members and 223 students. Indices of similarity were correlated with final grades.

The results of this investigation indicated that whereby values play a sometimes significant role in the academic evaluation process of individual instructors, the phenomenon was generally one which would cancel itself out when applied to the departments or the sample as a whole. It was also noted that there was a slight tendency for higher grades to be associated with student-instructor pairs which manifested some degree of similarity in their value structures.

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To the Graduate Council:

I am submitting herewith a Thesis written by Robert Raymond Berberich entitled "A Study of the Effects of Interpersonal Values Upon Academic Evaluation." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Garland E. Blair
Major Professor

We have read this thesis and
recommend its acceptance:

John W. Mineto
Minor Professor

John W. Martin
Third Committee Member

Accepted for the Council:

Wayne E. Stanger
Dean of the Graduate School

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CHAPTER 1

INTRODUCTION

Values have been a topic of conversation and indeed the motive for conversation on many occasions. Despite the relative familiarity of the construct, the actual dimensions of the phenomenon are quite dependent upon whom one refers to for a definition. Research in this area has had some noteworthy contributors. Thurstone (Thurstone, 1929; Thurstone, 1931; Thurstone and Chave, 1929) worked to develop a scale which would measure attitudes which were considered to be the base component of a value system. Other contributors in this area were Likert (1932), Bogardus (1925), Guttman (1950), as well as Edwards and Kilpatrick (1948). Philip E. Vernon and Gordon W. Allport, pioneers in attitude measurement, developed the Allport-Vernon Scale (1931) which is still a widely respected instrument in attitude measurement. It is noted that each of these researchers approaches the concept of attitudes from a slightly different vantage. Most recent in the field, and by his approach to the concept of values and attitudes the farthest removed from the above, is Leonard V. Gordon the designer of a value scale based upon factor analytic studies of behaviors. The factor analytic approach had been previously utilized by W.A. Lurie (1937) and Cyril Burt (1941). Their work, painstaking as it was, is seldom referred to in the literature. Gordon, however, appeared in an age of computers, a time when factor analysis was coming

in to its own. Unlike his predecessors, Gordon's work was not based upon Eduard Spranger's theoretical approach to the value construct. Gordon's intent was to make his instrument behaviorally descriptive.

The present research utilized Gordon's Survey of Interpersonal Values, (SIV), in an effort to test the hypothesis that value constellations interacting between the student and the instructor play a significant role in the determination of the individual student's final course grade. The sample consisted of thirty-two instructors in Austin Peay State University, Clarksville, Tennessee.

As has already been indicated little harmony exists in the approaches to value research. There does exist, however, a system of gross terminology which typifies most studies. Essentially the basic theory indicates that a value can be classified into two behavioral ends, the instrumental value and the terminal value. Instrumental values operate in governing the modes of behavior which lead to the satisfaction of the terminal value. Terminal values are generally gross overall philosophies which apparently govern the directions in which man travels. An example of a terminal value might be, "All men are created equal." The instrumental values give impetus to behaviors which lead to the substantiation and realization of the terminal value. Instrumental values, then, are legion while terminal values

are quite few. There is a technical difference between a value and an attitude. For the present study Rokeach's (1967) definitions are adhered to. Rokeach details the skeletal outline which underlies the individual value pattern. He concludes that initially the individual possesses a set of beliefs which when combined form an attitude. The general structuring of attitudes, in turn, leads to the formation of an instrumental value. The combination of instrumental values for any given individual subsequently determines the ultimate overall value structure of the person or that person's terminal values. While the terminal value provides the base which seldom varies, the attitudes and beliefs, analogous perhaps to the leaves and pliable younger branches attached to the immovable trunk of a tree, are subject to change depending upon environmental press. While young the entire structure may be completely altered; but with advancing age the probability that anything but a small portion of the structure will be altered is very small. Modification and integration continue depending upon input of "facts". Seldom does this integration go beyond the instrumental values to affect the terminal values. In terms of the instructor then, value structures and attending attitudes and beliefs would tend to be maintained more firmly than would those of the student. Theories of cognitive dissonance (Festinger, 1957) would support the hypothesis that similar value structures interacting between two personalities would

tend to produce no dissonance thereby allowing for the possibility of an attraction between the two individuals. This attraction, given that no other variables are present which may react against such an attraction, may either result in partiality between the two or minimize conflict of values such that a more objective evaluation might be feasible. Hence, with regard to student-instructor value similarities, chances would increase that the student possessing a similar value orientation may receive a more favorable final grade.

For this research, Rokeach's definition of a value will be used. He states that a value, "...has to do with modes of conduct and end-states of existence." He continues by saying, "...it is also an enduring belief that a specific mode of conduct or end-state of existence is sociably and personally more preferable to alternative modes of conduct or end-states of existence." This does not mean, however, that end-states of existence (or terminal values) are always manifested in ongoing behavior. The extent to which a discrepancy exists between the values of an individual and his behavior may be interpreted as an index of neuroticism. To this end the value inventory may have more construct validity than criterion validity.

In view of the definition and description given values, one primary concern which comes to mind in value measurement

is the reliability of the measurement as well as the value construct itself. Theoretically, the measurement of a belief or an attitude should prove much more highly unreliable than the measurement of a true instrumental or terminal value. Studies have shown this not to be true. Ferguson (1939), for example, quotes Thurstone as reporting the reliabilities of his test as being "all over .80, most of them being .90." Murphy and Likert (1938) report correlations of .79 to .91 for their inventories. Bogardus (1925) asserts that his test had a reliability coefficient of .90 while Guttman (1950) reported a .85 and higher. Gordon (1963) reporting on studies done on the SIV with respect to reliability indicated that the various scales within the survey were each stable over periods from one to four years. Correlations ranged from .55 to .82 for the four year interval. Standard reliability tests run on the SIV over a ten day interval ranged from .71 to .86 (Gordon, 1960). Reliability studies for the SIV were performed on college students.

Given that values are a measurable behavioral entity; given that values are able to inhibit or facilitate a relationship, a rather pressing question presents itself with regard to educational psychology. How does the interaction between the values of the student and the instructor affect the final grade? By administering a value surveying tool in order to measure the similarity between the values of the student and the instructor, and correlating this similarity

with the final grades of the student, one would obtain an index of the interaction which may be occurring between the two.

In considering the student, again using Festinger's model of cognitive dissonance, it is reasonable to assume that the assimilation of information would be more easily accomplished when the content of any given communication differs least from previously learned concepts. Studies by Weiss and Fine (1955), Hovland, Campbell and Black (1957), Hovland, Harvey and Sherif (1957) all support man's tendency to accept that which is familiar as opposed to that which is foreign. Studies by Hovland, Lumsdaine and Sheffield (1949) did, however, show that better educated males were less affected by one-sided communication than were less educated contemporaries. This may suggest that value systems among college students might be somewhat more resistant to change than would be the systems of their less educated contemporaries, which would therefore tend to maximize the probability that dissimilar value structures existing between the student and the instructor would clash. What would be the effects of this clash? If the grading process were essentially subjective would the effects be more evident than if the grading process were primarily objective in process?

Subjectivity and objectivity have been terms referred to frequently in the previous remarks. Objectivity can be interpreted as a quality which allows judgement to be highly reliable and valid. The more complex a given structure is the less is the probability that any two persons will view it in the same way. If the object, however, were broken down into its components readily, the probability increases that any two given people will see the object as being alike. The difference between an art and a science is the science can be analyzed in terms of structure, while art requires analysis of effect to imply structure. Academically this distinction manifests itself when one refers to the so-called "arts and sciences". Given the reasoning which has thus far been presented one might assume that value judgements would be more likely to operate within the "arts". The result of this implication would suggest that the "arts" faculty would be more likely to repair to factors other than analysis of the structure of the student's learning.

The present research utilized the SIV to gather data on value systems of students and instructors. Each student participant was asked to indicate final grades received in prescribed courses. The numeric description of similarity between student and instructor values was then correlated with the final grades. The resulting coefficient yielded

an index which indicated whether or not the possibility existed that similar value systems existing between student and instructor were perhaps an impetus for higher final grade. For expediency school records were not utilized in securing grades. The students were trusted to reflect their true grades on a transcript form. Kirk and Sereda (1969) indicated that a review of the literature showed that the correlation between student's reported grades as opposed to the grades reported for the students ranged from .664 to .940. In their own study they reported a correlation of .90 for GPA's reported voluntarily against those which were part of permanent record. Asking the student for a self-reported transcript then would not appear to bias the study greatly.

Gordon's SIV was selected for the present research because of its specific behaviorally oriented statements which Gordon arrived at through factor analytic methods. Ascribing to a particular pattern of statements indicated the value hierarchy of the individual taking the inventory. It was felt that the behavioral component of the statements would allow for less evasiveness for the individual taking the survey. A copy of the SIV may be reviewed in Appendix D.

Specifically, the SIV defines the following values:

Support: Being treated with understanding, receiving en-

couragement from other people, being treated with kindness and consideration. Conformity: Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist. Recognition: Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition. Independence: Having the right to do whatever one wants to do, being free to make one's own choices, being able to do things one's way. Benevolence: Doing things for other people, sharing with others, giving to the unfortunate, being generous. Leadership: Being in charge of other people, having authority over them, being in a position of leadership and power. The survey can be scored on the basis of these values. For purposes of the present study the scoring categories were ignored and only the placement of individual statements as a whole was correlated against another's placement of the same statements. Gordon and Hoffman (1968) conducted research which utilized the statements of the SIV as a Q-sort and found that surveys were able to be compared on that basis rather than by comparing scores on the basis of the normalized scales. Whether scores on the basis of the normalized scales or inter-correlations of statement placement, there appears to be no difference in reflection of similarity or dissimilarity as a result of the method employed in measurement.

CHAPTER II

METHOD

A total of 223 students and thirty-two faculty were surveyed using the SIV. Membership in this sample was contingent strictly upon whether or not a student was enrolled in any one of the sophomore level introductory psychology courses and was present on the day the survey was administered. All surveys were completed during the first three weeks of the winter quarter, 1972. Students in these classes ranged from sophomore through senior level with a preponderance of sophomores. All of the surveys were accomplished within the individual classes. Class sizes ranged from twenty-eight to ninety-seven. Total testing time ranged from forty-five to seventy minutes. The survey kit contained four blank IBM universal mark sense cards (IBM Form 883975ms), one mimeographed student report of grade transcript upon which the student was asked to indicate his name, student number, class standing, and a list of courses and instructors had in the departments of History, English, Sociology, Psychology, Political Science and Philosophy. Adjacent to the course and instructor the student was asked to indicate the final grade received. Included also as part of the kit was the SIV and one IBM special pencil.

After assurance that the entire class was in possession of the complete kit, the survey administrator explained the

Based upon the rationale presented, the hypothesis which the present research set out to test states that given a sample of sophomore level students at Austin Peay State University who are given the SIV and asked to report grades received in specific departments, and given a sample of instructors from the same specific departments who also take the SIV, the T score equivalents of correlations indicated by the comparison of student and instructor surveys as compared to the end of course grades assigned each student will depict a linear relationship that will be statistically significant at the .05 level.

purpose of the study to students. Three main points were emphasized: The study was considered strictly confidential. The study was voluntary. The general purpose of the study was to determine if values accounted for any significant part of the variance in the determination of final grades. After this explanation had been given questions were invited from students. Following the questions the students were told that if they did not desire to participate in the study they may leave their materials on their desks and spend the period at their place as they chose. Students were required to place their name at the top of their transcript in order to lend credibility to the procedure. It was indicated that transcripts would be spot checked at the admissions office in order to gain an indication of how reliable the reported grades were.

Following the completion of the general orientation each student was asked to inventory his kit. After completing this step and reconciling any shortages the transcript of grades and courses was explained. Participants were asked to concentrate on recall of those courses which they had had prior to the last quarter but that courses which they had had prior to the last quarter following the description of desired courses for this study would be greatly appreciated. It was also stipulated that should an individual be unable to recall the name of a course or its number,

that the most important information, in terms of this survey, was the instructor's name and the grade received from him. Transfer students were offered the opportunity to participate, but their results could not be utilized since they had not had courses from Austin Peay State University previously. The same instructions were given to students who had not had courses in the specified departments or who could not recall grades and/or instructors.

In the next step participants were asked to take the four IBM cards included in the kit and to number them sequentially from one through four. Following completion of this step they were asked to place their names on each card. On the front of each card, on the lower right hand corner, appeared the number twenty-seven. In the case of cards numbered two and three, these lower right hand numbers were to have been changed to fifty-four and eighty-one respectively. On card number four the number nine was to have been changed to ninety.

The students were then asked to take the survey form. It was pointed out that the questions were presented in triads, and that each triad would have to be evaluated separately ascribing the number one to the statement which they felt they valued most and three to the statement they valued least. The number two was assigned automatically to the middle statement. This information then had to be trans-

scribed to the IBM card placing in each numbered column the number one, two or three depending upon whatever number that particular statement was assigned. There was a total of thirty triads and ninety different statements. It was asked that neither students nor instructors fill in the inventory in terms of a specific criterion, but that the choices made be indicative of their overall value structure. It was also specified that should there be difficulty in determining the rank between two seemingly equal statements, any arbitrary method of choosing would suffice. Upon completion of the directions it was asked whether or not there were any questions. Following clarifications the participants were asked to begin. While the students were working the examiner passed about the classroom in an effort to answer any questions which may have arisen during the survey taking as well as to correct any obvious errors in procedure.

At the end of the period all of the questionnaires and supporting materials were collected. Approximately eighty-five to ninety percent of all kits handed out were returned completed. All unusable responses were omitted from the study.

Following the administration of all surveys all of the mark sense cards were taken to the university's computer center where they were punched by an IBM 1340 using a mark

sense decoder program. Using the same machine each card set was reproduced in accordance with the number of usable grades indicated on the grade transcript corresponding to the card set. Usable grades were those which were indicated as having been given by an instructor who participated in the survey. Information regarding course name or number was not relevant except in several courses where they were used to identify an instructor. For each student, then, there was a set of cards reproduced for each participating instructor indicated on the transcript. Along with the card set there was included a grade card punched with the numbers one, two, three, four, and five corresponding to A, B, C, D, and F.

Instructors were selected for the study based upon whether or not they were listed five times or more by participating students. As soon as it was noted that five students had referred to an instructor that individual was contacted. The nature and the purpose of the study was explained to the instructor. Prior to contacting any instructor, each department chairman was apprised of the study and each was asked for their sanction. In return they were offered a printout indicating the overall results for their department. They were told, however, that no names would be released in conjunction with the statistics. This same offer was made to each instructor, except that they would obtain the correlations for each student who indicated having

them for a course as well as the overall correlation of that sample. Again, no names were to have been included in their report out. Each instructor was assured of complete anonymity. Only two of the thirty-four instructors interviewed refused to participate.

Following their agreement to co-operate, each instructor was given a SIV. He was asked to fill in the survey at his convenience. One week later the individual was contacted for collection of the data. Upon retrieval, each participant instructor was queried as to his method of arriving at a final grade. Of particular interest was whether the instructor saw his procedure as subjective, objective, or a combination of the two.

Information from the faculty survey forms was transcribed to the mark sense cards by this researcher. Once this was completed a card deck was constructed in the following manner. Each instructor's coded IBM card set was placed first to be followed by the coded sorts of students who had indicated having had the instructor. The computer through which this deck was fed (IBM 1401) was programmed to correlate each student's set with the master (instructor) set. The resulting correlations were then correlated to T scores. Each T score was correlated with the final grade given the student by the instructor. This manipulation was performed on each instructor, each department and finally on a grand sample basis.

The formula used to compare the student's sort with the instructor's was Block's (1958) formula for comparing two Q-sorts. This was done in view of Gordon's (1968) conclusion that the forced choice method of obtaining data was no different than a structured Q-sort in terms of mathematical-statistical consideration. Block's formula reflected a score which considered the total sum of squared deviations divided by twice the product of the total number of statements and the variance. The correlation thus obtained was converted to a T score. The Fortran IV program used in calculating the original first order correlations is included as Appendix B.

The next step was to correlate the T scores with the final grades. The Pearson Product Moment Correlation was used for this computation. This correlation was run on each instructor, each department, and for the entire sample. Each correlation was tested for significance using a conversion for the Pearson r to z when the sample had an N of thirty or greater, or a conversion to t if N was less than thirty. The Fortran IV program for the Pearson Product Moment Correlation is contained as Appendix C. Due to the limited storage of the IBM 1401 computer the entire deck could not be analyzed in total. Instead the program had to be broken down to accommodate machine capacity.

CHAPTER III

RESULTS

The overall correlation extending over the 899 bits of information yielded an insignificant correlation of $+0.039$. Correlations for any given department ranged from a $+0.121$, where $N=12$ for a one instructor sample, to a -0.045 where $N=216$ for a five instructor sample (see Table 4). Four of the departmental correlations were in a positive direction while two were in the negative.

The greatest intradepartmental range in terms of the correlations between value similarity and grades occurred in the Department of English where correlations ranged from a -0.461 to a $+0.523$ with an overall correlation for that department being a $+0.007$. This overall correlation was the closest to zero for all departments. The Department of Sociology manifested the second most varied set of intradepartmental correlations. Three of the four scores obtained for the instructors of that department were in the negative direction. The correlations ranged from a -0.329 to $+0.189$ with an overall correlation of -0.045 . The Department of Political Science was the next most expansive in terms of score range. For the two instructors in this department the correlations ranged from $+0.106$ to $+0.562$ with an overall correlation of $+0.101$. Next was the Department of History where the correlations ranged from $+0.096$ to

+ .269 with an overall correlation of $-.022$. Manifesting the least in terms of range was the Department of Psychology where scores ranged from $-.096$ to $+.129$ with an overall departmental correlation of $+.025$.

With the exception of two instructors, one in English and one in History, significance tests revealed that the remaining thirty correlations were not significant statistically. Three other instructors rendered correlations which indicated significance at the $.10$ level. Two of these were in the Department of English and one in Political Science. (see Table 1). Although the departmental correlations did not differ drastically from one another, there was a rather vast difference in the ranges exhibited by each department. The value-grade correlations of instructors designated by method of student evaluation are reflected in Table 5. Ninety-two percent of the negative correlations occurred in the so-called mixed grader category which contained fifty percent of the faculty surveyed.

TABLE 1
Correlations by Individual Instructors between
Value Similarities and Final Grades

Department	Correlations	N	t	P
English	-.102	21	-.448	** **
	.115	32	.636(z)	
	.249	17	.995	
	.000	07	.000	
	-.068	32	-.374(z)	
	-.461	17	-2.014	
	.323	30	1.808	
	.523	23	2.813	
	-.118	08	-.291	
	-.132	32	-.732	
	.204	09	.552	
	.095	22	.427	
	-.066	37	-.376(z)	
	.088	31	.478	
Political Science	.562	10	1.921	**
	.106	20	.478	
Philosophy	.121	16	.455	
Psychology	.127	09	.338	
	.079	15	.285	
	.129	20	.553	
	-.096	60	-.736(z)	
	.065	87	.595(z)	
	.120	17	.468	
Sociology	.189	33	1.070	
	-.329	07	-.779	
	-.272	30	-1.496	
	-.105	41	-.662(z)	
History	.175	24	.835	*
	-.029	57	-.215(z)	
	.269	46	1.821(z)	
	-.096	53	.691(z)	
	.165	53	1.188(z)	

* p less than .05
 ** p less than .10
 *** p less than .12

TABLE 2
Grading Patterns by Departments

Department	Test Types		
	Objective	Mixed	Subjective
English	0	6	8
Political Science	0	0	2
Philosophy	0	0	1
Psychology	5	1	0
Sociology	0	4	0
History	0	5	0

TABLE 3
Departmental Correlations Between
Value Similarity and Final Grades

Department	Overall Correla- tion	N		z	p
		Instructor	Student		
English	.007	14	318	.120	
Political Science	.101	02	030	..537(t)	
Philosophy	.121	01	016	.455(t)	
Psychology	.025	06	208	.360	
Sociology	-.045	04	111	-.473	
History	-.022	05	216	-.322	
Total	.039	32	899		

* p less than .05

** p less than .10

*** p less than .12

TABLE 4
Instructors in Sample Vs Instructors in Department

Department	Instructors	
	In Sample	In Department
English	14	18
Political Science	02	02
Philosophy	01	02
Psychology	06	06
Sociology	04	04
History	05	10
*Total	32	42

TABLE 5
Instructor-Grade Correlations as Assigned to
Grading Type Categories

Objective	Subjective	Mixed			
.065	.088	.323	-.096	-.102	.523
.127	-.461	-.329	-.132	.095	-.118
.129	.562	.269	.175	-.096	-.272
.079	.000	.066	-.068	.115	.249
.120	.121	.204	.189	-.105	-.212
	.106	.165			

CHAPTER IV

DISCUSSION

The differences which occurred within this study appear to be a function of the individual instructors as opposed to the departments. Overall correlations for departments were low even though in several instances the low score was due to the cancellation effect of extreme scores. Despite the fact that the overall correlation for this study did not approach significance there were evidences of certain tendencies among the data. One of the most striking items was the extent of the range which characterized the distribution of student-instructor correlations within certain departments. The English Department was prominent in this context because it displayed correlations ranging from $-.461$ to $+.523$. This was a $.984$ spread. The $+.523$ was significant at the $.02$ level. In a similar posture were the two instructors in the Political Science Department which displayed a wide range within its correlations. The high correlations between value similarity and final grades existing for certain instructors within the aforesaid departments may indicate the possibility that value similarities may account for some share of the variance in determining final grades. It appears that in some instances value dissimilarity rather than similarity may account for grade assignment. Like the Departments of Political Science and English,

the Department of History yielded one correlation which was significant at the .03 level and one at the .12 level. Correlations which neared significance were generally in the positive direction. This would suggest that value similarity was more likely to gain more favorable grades than was value dissimilarity.

The Department of Sociology was somewhat unique in this study in that a survey of all of its faculty members revealed that three of the four correlations for those instructors were in the negative direction. This may indicate that for that department a student who has a dissimilar value orientation from those of the instructors may be more likely to attain a better final grade.

The Department of Psychology also possesses a somewhat unique character in terms of this study. In this department five of the six instructors surveyed reflected positive correlations. Also five of the six instructors utilized objective tests and objective means in determining final grades (see Table 2). The extent of range displayed between instructors was the least for all of the departments surveyed. Note that the one instructor in this department who did not show a positive correlation was the only one who used a combination grading procedure. The correlations within this depart-

ment also deviated the least from zero. The fact that objective testing was used by all but one of the instructors and the fact that all of the correlations, with one exception, were in a positive direction would indicate that there may be a slight tendency for value similarity to affect grades.

In order to consider the interaction of grading method with value systems each of the surveyed instructors was asked to indicate their method of assigning final grades to their students. The instructor's self-description was classified into one of three groups (see Table 5). From this data it is evident that the greatest majority of instructors in this sample saw themselves as neither objective nor subjective graders, but a mixture of the two. (It is the opinion of this author that those who categorized themselves as "mixed" graders were primarily subjective in the way in which they combined their data to arrive at the final grade.) The instructors who considered themselves "mixed" graders had within their ranks all but one of the negative correlations. Their correlations ranged from $-.329$ to $+.523$, a point spread of $.852$. The subjective group would have manifested a lesser point spread had it not been for the one correlation in the extreme negative direction. The range in the objective group was $.194$. These figures suggest that instructors in this sample who were admittedly either objective or subjective or, shall we say, more de-

finitive in their approach, were, as a group, least likely to vary and that they also tended to grade to some small degree on the basis of whether or not students were similar to them on the SIV.

In terms of the instructors samples, three of the six departments were represented in full, while eighty percent of the English faculty and fifty percent of the History faculty were represented. In both the later cases those faculty who were represented comprised the greatest percentage of the lower division course instructors.

CHAPTER V

CONCLUSION

The data presented in this study does support the hypothesis that values do influence the final grades of the students. This influence is by no means constant over an entire faculty, however, but varies from instructor to instructor. There is also a general indication that similarity influences grades more than dissimilarity. Values appear to influence the grading of certain instructors. The question of how a student can maintain a 4.00 GPA becomes a cogent query especially in light of the findings of this research. The "four point" student must possess some facilitation for all types of value systems. The value system of the "four point personality" might be studied in order to determine the general value orientation of these students.

One element of human personality which was not considered in this study was perception. Even though the value systems of any given student and instructor may have been quite similar, the instructor's perception of this similarity may not have been accurate. Subsequently, had this study correlated the results of some index of value similarity as perceived by the instructor with the final grades of his students there may have been a more linear relationship.

The general results of this research are strongly suggestive of some complex mode of interaction existing within the current grading system of this sample. More conclusive results would be gleaned from more controlled research. One suggestion made to this end would be to design a sophisticated sampling which would cover the entire student body of an institution. In order to eliminate any bias in terms of grade reporting, by students, grades might be secured from the student's records with their permission. Also more complete data might have been gleaned from instructors in terms of their grading practices. Also instructions for completing the forms may have been simplified.

An all student, controlled sample, would lend itself to more detailed examination of the data. One might expect, for instance, that if there were an interaction between value similarities and grades that this interaction would tend to be influential in all grades received from any given instructor provided that the initial value structure of the student is perceived as having remained unaltered by the instructor. One might expect that if the student and the instructor move toward one another in value orientations that the final grade would have a tendency to rise. The linearity of the grade-value relationship might also be more amenable to scrutiny if the grades were numerical as opposed

to alphabetical. An all student survey would also determine whether values were more influential in upper division courses where student teacher interaction is more frequent as opposed to the lower division courses where, due to size, objectivity is an expedient.

Lastly, consideration must be given to the instrument. Gordon suggests that his survey be renormed to the local population when being considered for use. Although this pitfall was avoided by correlating statements instead of scores, the question might be asked as to whether the statements on the survey were "meaningful" to the individuals who took the survey.

The results of this research indicate generally that although values hold no constant influence over the evaluation of a student's academic achievement so far as the educational system is concerned there is some influence generated by values which tends to affect the grading of any one given instructor. Values take their place in the myriad of factors which may influence academic evaluation.

APPENDIX A
INSTRUCTIONS TO STUDENTS

The survey you are about to complete is not a test. It is not designed to determine your individual values. For purposes of this research it will be used solely as a tool to correlate the way in which you answer any given statement to the way in which another individual, in this case an instructor, answers any given statement. The values surveyed are intended to be general values, not ones which define a specific criterion. The general purpose of this study is to correlate grades and value similarities of students and instructors. Your name will be placed on the survey but used only as a reliability check for determining whether the grades reported are generally the grades you actually received.

Your participation in this study is totally voluntary. You are in no way being forced to participate. If you choose not to participate, please retain the materials at your desk and involve yourself in whatever you may choose. The materials you should now have before you include one, four IBM mark sense cards, two, one transcript form, three, one IBM pencil and four, one value inventory.

First take the blank transcript of grades and courses. You are to fill in all of the courses which you have taken

last quarter in the following departments: (write on board) English, Political Science, Philosophy, Psychology, Sociology, History. You must also indicate the name of the instructor and the final course grade you received. It is more important that you stipulate the instructor and the grade than any other of the information. Specific course titles and numbers, while helpful, are not absolutely necessary. Please do not fail to enter a course because you fail to recall a department, a course number, or a course name. If you are able to recall courses and grades you received from the departments mentioned before last quarter, any information which you might furnish in addition to last quarter will be greatly appreciated. After you have completed the transcript place your name on the upper left hand corner and fill in all other information.

Transfer students or individuals who have not had any courses in the departments mentioned need not participate in the survey.

Now take the four IBM cards, sign your name on the back of each card. (Pause) Now number each card from one through four. (Pause) Take card number two and on the front side in the lowest column find the number twenty-seven, over that twenty-seven, in ink, mark in the number fifty-four. If you don't have a pen you may use your IBM

pencil. (Pause) Now take your number three card and again find the number twenty-seven at the lowest right hand side of the card. Over the twenty-seven, mark in the number eighty-one. (Pause) On card number four find the number nine in the lowest row of numbers. Over that nine place the number ninety. (Pause) Pick up your survey of interpersonal values and notice that each statement is numbered. These numbers correspond to the numbers at the lower end of the IBM card. On card two the number one corresponds to twenty-eight, the number two to twenty-nine, etc. That is why you were asked to place the numbers at the end of each lower row. By noticing that number at the lower right end of the card when you reach it in the course of completing the survey and comparing it with the number you are completing in the survey, you can check yourself to be sure you are marking information for the correct statement.

Now pick up the copy of the value survey which you have in your possession. Note that these statements are divided into groups of three. Your task is to rate each member in the triad as to the one you value the most, as well as the one you value the least. To the statement you regard most you assign the number one; to the statement you regard the least you assign the number three. The middle statement receives the number two. Now pick up your number one IBM card. After you have evaluated each triad you must transfer

those evaluations to the IBM card. Note column one.
(Point) Column one corresponds to question number one.
Note the rank you assign statement number one, say it is
a two, transfer this two to column one. Now look at number
two. Say that you assign this statement a number one.
In column number two you place the number one (color it in).
Now note statement number three on the inventory and note the
number you assigned it. As you have done with one and two
transfer this value to column number three on the card.
When you have completed this go to the next triad and
repeat the process until you have evaluated all thirty
triads. Remember, when you begin card two, the columns will
not be numbered sequentially to correspond to the numbers
on your survey sheet. Only the last number which you have
inserted in the last column will correspond. PLEASE DO NOT
WRITE ON THE VALUE INVENTORY.

When you have completed the inventory please retain
all items at your seat until they are collected. Are
there any questions?

APPENDIX B

A FORTRAN IV PROGRAM FOR THE CALCULATION OF A THREE CATEGORY Q-SORT

```
FORTRAN COMPILATION VER 2 MOD 2
$OBJECT MACHINE SIZE = 15999
$NO NAME DICTIONARY
$NO DICTIONARY
$NO SEQUENCE NUMBER DICTIONARY
001      DIMENSION X(90),Y(90)
002      PAUSE
003      READ(1,20)Y
004 20    FORMAT (27F1.0/27F1.0/27F1.0/9F1.0/)
005 1      READ(1,20)X
006      R=0.0
007      SSDI=0.0
008      DO 40 L=1,90
009      SSDI=SSDI+ ((X(L)-Y(L))**2)
010 40     CONTINUE
011      R=1.00-(SSDI/120.0)
012      WRITE(3,50)R
013 50     FORMAT(1H0,24HCORRELATION WITH MASTER=,F10.3)
014      GO TO 1
015      STOP
016      END
```

APPENDIX C

A FORTRAN IV PROGRAM FOR THE CALCULATION OF THE
PEARSON PRODUCT MOMENT CORRELATION

```

FORTRAN COMPILATION  VER.2 MOD 2
$OBJECT MACHINE SIZE
$NO NAME DICTIONARY
$NO DICTIONARY
$NO SEQUENCE NUMBER DICTIONARY
001      DIMENSION X(10),Y(10)
002      AVERX=0.0
003      AVERY=0.0
004      SDX=0.0
005      SDY=0.0
006      SPS=0.0
007      SFC=0.0
008      SSC=0.0
009      ACS=0.0
010      AXS=0.0
011      SPSS=0.0
012      SFCS=0.0
013      ACSS=0.0
014      SSCS=0.0
015      AXSS=0.0
016      ACSR=0.0
017      ACSR=0.0
018      ACSSR=0.0
019      SSCSR=0.0
020      ACSSRT=0.0
021      BSQR=0.0
022      R=0.0
023      Z=0.0
024      AB=10.0
025      N=10
026      PAUSE
027      DO 5 JJK= 1,N
028 5      READ(1,10)X(JJK),Y(JJK)
029 10     FORMAT(F2.0/F1.0)
030      DO 20 I 1,N
031      AXS=AXS+Y(I)
032      ACS=ACS+X(I)
033      SSC=SSC+Y(I)*Y(I)
034      SFC=SFC+X(I)*X(I)
035      SPS=SPS+X(I)*Y(I)
036 20     CONTINUE
037      SPSS= SPS*AB
038      SFCS= SFC*AB
039      ACSS= ACS*ACS
040      SSCS= SSC*AB

```

```

041      AXSS=AXS*AXS
042      ACSR=ACS*AXS
043      ACSR=SPSS-ACSK
044      ACSSR=SFCS-ACSS
045      SSCSR=SSCS-AXSS
046      ACSSRT=ACSSR*SSCSR
047      BSQR=SQRT(ACSSRT)
048      R=ACSKR/BSQR
049      Z=R*SQRT((AB-2.00)/(1.00-R**2))
050      AVERX=ACS/AB
051      AVERY=AXS/AB
052      SDX=SQRT((SFC/AB)-AVERX**2)
053      SDY=SQRT((SSC/AB)-AVERY**2)
054      WRITE(3,50)Z
055 50    FORMAT(1H0,2HZ=,F10.3)
056      WRITE(3,51)R
057 51    FORMAT(1H0,2HR=,F10.3)
058      STOP
059      END

```

APPENDIX D
STATEMENTS COMPRISING THE SIV

1. To be free to do as I choose
2. To have others agree with me
3. To make friends with the unfortunate
4. To be in a position of not having to follow orders
5. To follow rules and regulations closely
6. To have people notice what I do
7. To hold an important job or office
8. To treat everyone with extreme kindness
9. To do what is accepted and proper
10. To have people think of me as being important
11. To have complete personal freedom
12. To know that people are on my side
13. To follow social standards of conduct
14. To have people interested in my well being
15. To take the lead in making group decisions
16. To be able to do pretty much as I please
17. To be in charge of some important project
18. To work for the good of other people
19. To associate with people who are well known
20. To attend strictly to the business at hand
21. To have a great deal of influence
22. To be known by name to a great number of people
23. To do things for other people
24. To work on my own without correction
25. To follow a strict code of conduct
26. To be in a position of authority
27. To have people around who will encourage me
28. To be friends with the friendless
29. To have people do good things for me
30. To be known by people who are important
31. To be the one who is in charge
32. To conform strictly to the rules
33. To have others show me that they like me

34. To be able to live my life exactly as I wish
35. To do my duty
36. To have others treat me with understanding
37. To be a leader in the group I am in
38. To have people admire what I do
39. To be independent in my work
40. To have people act considerately toward me
41. To have other people work under my direction
42. To spend my time doing things for others
43. To be able to lead my own life
44. To contribute a great deal to charity
45. To have people make favorable remarks about me
46. To be a person of influence
47. To be treated with kindness
48. To always maintain the highest moral standards
49. To be praised by other people
50. To be relatively unbound by social conventions
51. To work for the good of society
52. To have the affection of other people
53. To do things in the approved manner
54. To go around doing favors for other people
55. To be allowed to do whatever I want to
56. To be regarded as a leader
57. To do what is socially correct
58. To have others approve of what I do
59. To make decisions for the group
60. To share my belongings with other people
61. To be able to come and go as I want to
62. To help the poor and the needy
63. To show respect to my superiors
64. To be given compliments by other people
65. To be in a very responsible position
66. To do what is considered conventional
67. To be in charge of a group of people
68. To make all of my own decisions
69. To receive encouragement from others
70. To be looked up to by other people
71. To be quick in accepting others as friends
72. To direct others in their work

- 73. To be generous toward other people
- 74. To be my own boss
- 75. To have understanding friends
- 76. To be selected for a leadership position
- 77. To be treated as a person of some importance
- 78. To have things pretty much my own way
- 79. To have other people interested in me
- 80. To have proper and correct social manners
- 81. To be sympathetic to those who are in trouble
- 82. To be very popular with other people
- 83. To be free from having to obey orders
- 84. To be in a position to tell others what to do
- 85. To always do what is morally right
- 86. To go out of my way to help others
- 87. To have people willing to offer me a helping hand
- 88. To have people admire me
- 89. To always do the approved thing
- 90. To be able to leave things lying around if I wish

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