

# CORRELATIONS OF CRITERIA IN A HUMAN RELATIONS COURSE

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# CORRELATIONS OF CRITERIA IN A HUMAN RELATIONS COURSE

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## A THESIS

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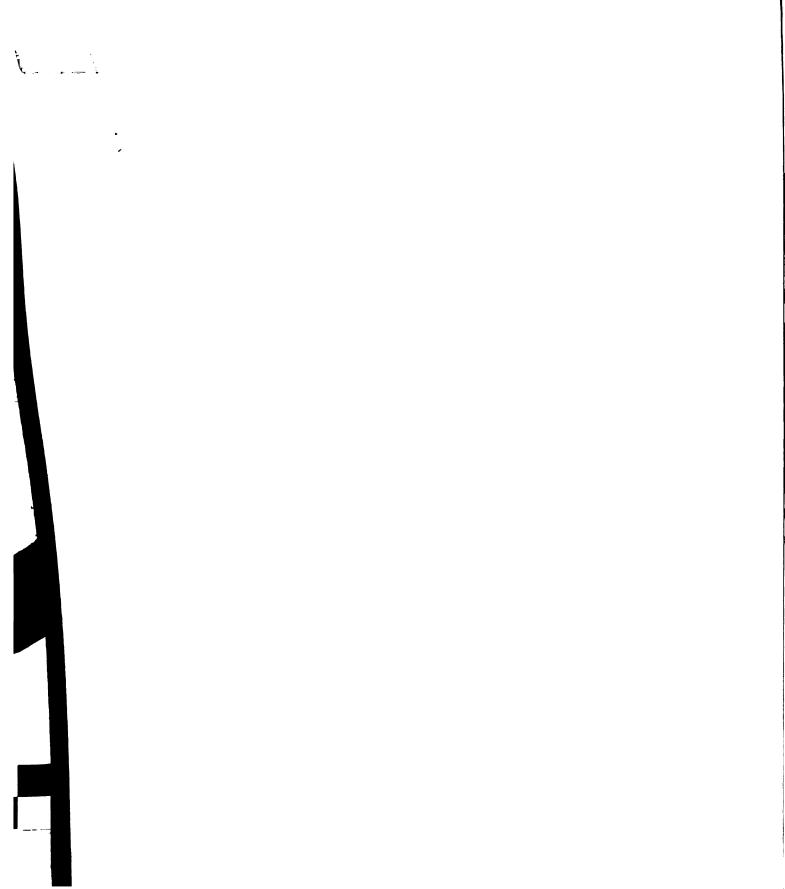
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#### STATEMENT OF THE PROBLEM

rapidly expanded during the past decade. Their success, however, has seldom been evaluated. Johnson and Smith (12), Smith (21), and Smith and Dunbar (22) have conducted experimental evaluations of college courses. Mc-Keachie (15) has systematically summarized other studies. Fleishman (6) and Hariton (7) have conducted two of the few experimental industrial evaluations. These evaluations are peculiarily difficult to make. A central difficulty has been lack of adequate criteria and information regarding their relationships. The focus of the present study was upon this latter question: What are the relationships between criteria of training success?

Evaluation of a course by students or supervisors is the most commonly employed criteria of training success. It is commonly assumed that these evaluations are closely related to another frequently employed criterion—knowledge of the course content. In other words, those who are most satisfied with a course are assumed to learn the most and vice versa. Although seldom explicitly stated, it is also often assumed that students high in satisfaction and achievement will also be high in desired skills and attitudes. These assumptions formed the framework of this study and dictated the hypotheses which were tested.

If these assumptions are correct, the problem of evaluation is greatly simplified for one criterion can serve the purpose of many. If the assumptions are not correct, then they must be discarded and evaluations made specifically for each course objective. Therefore the first two hypotheses

to be tested were as follows.

1. A student's success, as measured by one criterion, can be predicted from his success on other criteria.

2. A class's success on one criterion can be predicted from the class's success on other criteria.

Although there is widespread acceptance of these assumptions, experimental evidence lends only feeble support. Johnson and Smith (12) report a negative relationship between satisfaction and both achievement gains and gains in democratic attitudes and almost no relationship (.01) between achievement gains and gains in democratic attitudes.

Once criteria for training evaluation have been adopted, one is able to attack other problems, one being: Who shall profit most from human relations training? Again, the problem would be greatly simplified if one predictor could be utilized rather than a battery. Therefore, the third hypothesis to be tested was as follows.

3. Personality variables that predict success on one criterion predict success on other criteria.

"Intelligence" is probably the most often used predictor of individual success even though its use as such, as Woodrow (26) points out, has seldom been evaluated. Although it is generally considered a good predictor of both attitudes and achievement, recent evidence, especially that reported by Carlson, Fisher, and Young (4), Samua (20), and Woodrow (27), indicates only a slight relationship. Only slight relationships between intelligence and satisfaction, both in the classroom (2) and on the job (14), have been reported. Factors other than intelligence, even though in use, are even more in want of evaluation as predictors.

#### METHODS

Following a brief description of subjects who took part in the present study, a subdivision of the paper discusses the criteria employed for training evaluation as well as the tests which were used to measure success according to these criteria. The personality variables tested as predictors of individual success are then presented along with the tests used in their measurement. Then follows the experimental design and the procedure used in data analysis.

#### Subjects

The subjects of this study were 107 students (predominantly sophomores) in two sections of a quarter course in industrial psychology at Michigan State College. Each class met three times a week. Section "A" included 63 students, 47 of which were males and 16 females. Section "B" included 44 students, 37 of which were males and 7 females. Subjects had previously received, on the average, seven hours of credit in psychology. The same instructor taught both sections.

## Criteria Employed

The proper criteria for evaluation of any training program are determined by its objectives. The goals assumed to be important in the present study were the following: (1) to strengthen attitudes conducive to good

human relations; (2) to increase the accuracy of judgment of people; and (3) to increase knowledge of facts and principles of the psychology relevant to industrial problems. It was further assumed that a fourth factor, student satisfaction with the course, was not only a goal in itself but also a possible criterion of success on the other criteria.

Therefore, the factors chosen as criteria for evaluation of human relations training were: (1) human relations attitudes; (2) skill in prediction of human behavior; (3) achievement of facts and principles; and (4) satisfaction with the course. The evaluation of success in achieving such goals is difficult since it depends on the availability of adequate measures. Those chosen for the present study were, in order of the criteria enumerated above: (1) Meyer's Human Relations Test; (2) Trumbo's Prediction of Human Behavior Test; (3) Course Achievement tests developed for the group at hand; and (4) a modification of Hoppock's Job Satisfaction Scale.

# Meyer's Human Relations Test

The test employed as a measure of human relations attitudes was Meyer's (17) Human Relations Test. It consists of brief descriptions of persenalities, each description being accompanied by a number of multiple choice questions referring to how the individual described would behave in a given situation. There are 12 questions following the first sketch, 21 following the second, and 12 following the third, a total of 45 items. The sketches are so vague as to force the testee to project his own personality into the situation, thus causing the instrument to function as a projective test. For example:

George Drake works as an inspector on the assembly line in a company manufacturing electrical appliances. He likes his

work fairly well and has been promoted regularly. George is the kind of fellow who likes to study things. At one time he had wanted to be an engineer. This was impossible because, at that time, he had to support his mother. This doesn't seem to have affected him, however, except that he sometimes feels a little uncomfortable around college—trained men. George has lots of friends, both at work and away from work.

- 1. How would you expect George to handle his job as inspector?
  - (a) He probably knows the work habits of each of the workers better than most inspectors would.
  - (b) He probably doesn't pay much attention to the organization of his work.
  - (c) He probably likes the hard workers but is tough on the lazy type.
  - (d) He's probably careful not to hurt the workers' feelings when he can't pass their work.
- 2. A college-trained engineer was hired as an inspector during a depression period when jobs were hard to find. Now that times are better and there are openings, the engineer doesn't like his inspector's job and wants a transfer to engineering work. How would you expect George to feel about this?
  - (a) Although he wouldn't admit it, George would probably be tickled if the man failed as an engineer.
  - (b) He feels that the man should be given engineering work now.
  - (c) He feels that, since the man took the inspector's job, he should be satisfied with it.
  - (d) He probably figures that he would feel the same way if he were an engineer.

Meyer reports a coefficient of reliability of .58 as estimated by the split-half, odd-even method (correlation of scores on odd numbered items with scores on even numbered items). The coefficient of reliability was .67 by the same method using the present sample (see Table I). As measured by the test-retest method, the reliability was .51.

## Trumbo's Prediction of Human Behavior Test

Trumbo (25) was completing construction of his Prediction of Human Behavior Test at the time of this study. The pretest here employed was a 90 item test, the endtest a 120 item revision. There were, however, 60 items common to both instruments. Wherever gain scores are considered in this paper, only these 60 items are involved.

TABLE I
RELIABILITY OF CRITERIA EMPLOYED

Tost	Methods	Ŋ	r
Human Relations, pretest	Odd-even	83	•67 <sup>8</sup>
Human Relations, endtest	Odd-even	83	•67
Human Relations	Test-retest	<b>7</b> 6	•51
Prediction of Human Behavior, pretest (60 items)	Odd <b>-ev</b> en	105	•69
Prediction of Human Behavior, endtest (60 items)	Odd <b>-eve</b> n	81	•63
Prediction of Human Behavior, (60 items)	Tost-retest	78	•47
Prediction of Human Behavior, final form (120 items)	Odd <b>-eve</b> n	81	•75
Course Achievement, pretest	Odd-even	106	•55
Course Achievement, endtest	Odd-even	107	•75
Course Achievement	Test-retest	98	•12
Student Satisfaction Scale	Odd-even	81	•88

a Odd-even correlations are corrected for test length by the Spearman-Brown formula

The test is similar to Meyer's in that it consists of a number of personality sketches, each followed by a group of questions (in this case true-false) to be answered by the subject. However, he is able to answer them from the information given. It is not designed to be a projective test.

There are eight sketches in the instrument. An example follows with several of the items which accompany it.

## The Case of Bill the Traffic Manager

Bill is a \$10,000 a year traffic manager for a Milwaukee brewery. He was promoted from the driver ranks and possesses a fourth grade educational background. Bill is very loyal to the company and has high moral standards. When working in the ranks, he gained the reputation of being the hardest working driver. He is a big man and maintains that, "Hard work never hurt anyone."

- 1. He will accept drivers excuses as to how they lose time during the day.
- 2. He believes in the union idea of all workers being equal.
- 3. He feels that "trouble-making" shop stewards should be undermined in the eyes of their fellow workers.

Trumbo reports a coefficient of reliability of .77 for the final instrument as computed by the split-half, odd-even method. The coefficient of reliability computed on the present sample was .75 for the final form using the same method, .69 for the 60 items on the pretest, .63 for the same 60 items on the final form, and the test-retest reliability for the 60 items was .47 (Table I).

#### Course Achievement Test

The pre- and post-achievement tests were not identical. The pre-test was that given as a final examination for a class taking the course a year previously. It consisted of 90 items covering vocabulary, facts, and principles. The post-test was the final examination for the group at hand and consisted of 120 items. The odd-even reliability of the former was .55, that of the latter, .75 (Table I).

## Student Satisfaction Scale

Satisfaction with the course was measured by a modification of Hoppock's (10) Job Satisfaction Scale. The entire instrument follows.

- 1. Choose the <u>one</u> of the following statements which best tells how well you like this course.
  - (a) I hate it.
  - (b) I dislike it.

- (c) I am indifferent to it.
- (d) I like it.
- (e) I am enthusiastic about it.
- 2. Choose the <u>one</u> of the following which shows how you think your attitude toward the course compares with that of other students in the class.
  - (a) No one dislikes this course more than I do.
  - (b) I dislike this course more than most of the students.
  - (c) I like this course about as well as most students.
  - (d) I like this course more than most students do.
  - (e) No one likes this course better than I do.
- 3. Check one of the following to show how much of the time you feel satisfied with this course.
  - (a) Never
  - (b) Occasionally
  - (c) About half of the time
  - (d) Most of the time
  - (e) All of the time
- 4. Suppose you had a good friend who was considering taking the course. Would you:
  - (a) Strongly discourage him from taking the course?
  - (b) Mildly discourage him?
  - (c) Neither encourage or discourage him?
  - (d) Mildly encourage him?
  - (e) Strongly encourage him?
- 5. Check the statement below which best describes your feelings toward the course.
  - (a) Completely dissatisfied
  - (b) More dissatisfied than satisfied
  - (c) About half and half
  - (d) More satisfied than dissatisfied
  - (e) Completely satisfied

The minimum possible score was 5, maximum, 25. General indifference would be illustrated by a score of 15. Odd-even reliability, as computed for the sample at hand, was .88 (Table I).

## Personality Variables

Factors chosen for testing as predictors of individual success (hypothesis 3) were: (1) intelligence; (2) general anxiety level; and (3) atti-

stantiated, any one of these factors which predicts success according to one criterion should predict success according to any other. Tests used, in order of the predictors enumerated above, were: (1) the ACE Psychological Examination for College Freshmen; (2) the Taylor Manifest Anxiety Scale; and (3) a Participation Attitude Scale.

# ACE Psychological Examination

Scores on the ACE Psychological Examination for College Freshmen were used as indexes of intelligence. Reported odd-even reliability (3) is .83 (Table II). This was accepted for purposes of correction for attenuation. The scores themselves were already available since this test is given to all incoming freshmen during their first week (orientation week) at Michigan State College.

TABLE II

RELIABILITY OF INSTRUMENTS TESTED AS PREDICTORS OF INDIVIDUAL SUCCESS

Test	Method	r
ACE Psychological Examination	Odd-even	•83 <sup>8</sup>
Taylor Manifest Anxiety Scale	Odd-even	•92
Participation Attitude Scale	Odd-even	•86

These reliability coefficients were accepted as reported in the literature.

#### Taylor Manifest Anxiety Scale

The index of general anxiety was the score obtained by the subject on the Taylor Manifest Anxiety Scale (23). Reported odd-even reliability (9)

is .92 (Table II).

### Participation Attitude Scale

Attitude toward participation in class was measured by the following instrument. Answers were marked according to a five-point scale from strong disagreement to strong agreement. The minimum possible score was thus 10 while the maximum was 50. Odd-even reliability is reported (21) to be .86 (Table II).

- 1. Do you like to participate in class discussions?
- 2. Do you find it easy to speak in class?
- 3. Do you think that class discussions are valuable?
- 4. Is it easy for you to give an oral report before a class?
- 5. Do you volunteer answers to questions raised by the instructor?
- 6. Do you volunteer ideas to start discussions in class?
- 7. Do you do better in oral quizzes than in written ones?
- 8. Do you do better than most students when called on unexpectedly?
- 9. How often have you actually participated in your classes?
- 10. Do you raise an objection when you disagree with the instructor or a fellow student?

#### Experimental Design

The experimental design is outlined in Table II. All subjects were given the following tests during the first week of classes: (1) Meyer's Human Relations Test; (2) the 90 item version of Trumbo's Prediction of Human Behavior Test; (3) the pre-test of Course Achievement; (4) the Taylor Manifest Anxiety Scale; and (5) the Participation Attitude Scale.

During the last week of the course, subjects received (1) Meyer's Human Relations Test once more, (2) Trumbo's revised Prediction of Human Behavior Test; and (3) the Student Satisfaction Scale. The end-test of achievement was the final examination given at the end of the term (quarter-year). Scores on the ACE Psychological Examination for College Freshmen

were already available from college records. Hypotheses were then tested as outlined in the next subdivision of this paper, "Procedures in Data analysis."

TABLE III
EXPERIMENTAL DESIGN

	Pre-tests (Jan '55)	Post-tests (Mar 155)
Human Relations	х	Х
Prediction of Human Behavior	X	x
Course Achievement	X	x
Student Satisfaction Scale		x
ACE Psychological Examination	Scores alres	ady available
Taylor Manifest Anxiety Scale	x	
Participation Attitude Scale	x	

## Procedures in Data Analysis

In all correlations, the Pearson product-moment coefficient of correlation was computed.

# Procedure in Testing Hypothesis 1 (Student Success)

Correlation coefficients were calculated for each possible pair of the following sets of post-test scores: (1) Meyer's Human Relations Test; (2) Trumbo's Prediction of Human Behavior Test; (3) the final Course Achievement Test; and (4) the Student Satisfaction Scale. These coefficients were

then corrected for attenuation. Tests of significance were run both before and after the correction.

Since the value of training is determined most accurately by gains in performance rather than absolute scores, computations similar to the above were made on differences between pre- and post-test scores where such data was available, namely (1) Meyer's Human Relations Test, (2) Trumbo's Pre-diction of Human Behavior Test, and (3) pre- and post-tests of Course Achievement. There were no gain-scores in terms of satisfaction with the course. Reliability of the gain-scores employed (Table IV) was computed by a formula developed by Thorndike (24).

TABLE IV
RELIABILITY OF GAIN\_SCORES

Test	N	r
Human Relations	76	•33
Prediction of Human Behavior	78	•36
Course Achievement	98	•60

# Procedure in Testing Hypothesis 2 (Class Success)

Test of significance of differences between pre- and post-course mean scores on the following criteria were computed: (1) human relations attitudes (as measured by Meyer's Human Relations Test) and (2) ability to predict behavior (as measured by Trumbo's Prediction of Human Behavior Test). Similar data could not be computed for (3) achievement of facts and principles since pre- and post-tests were not identical nor for (4) satisfaction with the course since there were no pre-course scores.

## Procedure in Testing Hypothesis 3 (Success Predictors)

Coefficients of correlation were calculated between scores on each of the three predictors (the ACE Psychological Examination for College Freshmen, the Taylor Manifest Anxiety Scale, and the Participation Attitude Scale) and post-test scores on each of the four instruments used in training evaluation (Meyer's Human Relations Test, Trumbo's Prediction of Human Behavior Test, the final Course Achievement Test, and the Student Satisfaction Scale). Coefficients were corrected for attenuation and tests of significance were run both before and after the correction.

Similar computations were made between the same three predictors and gains as measured by differences between pre- and post-test scores on the first three instruments used in training evaluation.

#### RESULTS

The first hypothesis stated that a student's success, as measured by one criterion, can be predicted from his success on other criteria. In terms of absolute scores, however, the only significant correlation before correction for attenuation (see Table V) occured between skill in the prediction of human behavior and knowledge of facts and principles. Even this

TABLE V

INTERRELATIONSHIPS OF CRITERIA
(N--71)

Prediction	Achievement	Satisfaction
•13 (•19)ª	08 (12)	•18 (•23 <sup>*</sup> )
<b>CO-60-60</b>	•22* (•30**)	01 (01)
		02 (03)
	•13 (•19) <sup>a</sup>	•13 (•19) <sup>a</sup> -•08 (-•12)

<sup>&</sup>lt;sup>a</sup>Correlations in parentheses in this and other tables are corrected for attenuation.

relationship was weak. The correlation was only .22 before the correction and .30 after. A relationship also appeared between human relations attitudes and satisfaction with the course but only after the correction was made. The correlation was still quite low (.23).

It is interesting to note that those with greater knowledge of facts

<sup>\*</sup>Significant at .05 level of confidence

<sup>\*\*</sup>Significant at .Ol level of confidence

and principles had poorer attitudes as measured by Meyer's test. Other negative correlations were so close to zero that they do not warrant further comment.

In terms of gain-scores, there were no significant correlations before the correction and but one after (Table VI). This correlation was negative

TABLE VI

INTERRELATIONSHIPS OF GAIN—SCORES
(N—-82)

	Gains- Prediction	Gains- Achievement
Geins- Human Relations	.05 (.15)	.06 (.13)
Gains- Prediction		-•12 (-•25 <sup>*</sup> )

<sup>\*</sup>Significant at .05 level of confidence

indicating that those who gained the most in terms of knowledge of facts and principles tended to gain least in predictive skill. In all, there is little evidence in support of the first hypothesis in either the absolute or the gain-score data.

The second hypothesis stated that a class's success on one criterion can be predicted from the class's success on other criteria. It is evident from Table VII that there were no significant gains on either of the criteria for which data were available. Therefore, it is not possible to obtain a decisive test of the second hypothesis. It is evident, however, that insignificant gains on the prediction variable were not matched by comparable gains on the attitude criterion, for attitudes tended to become poorer

rather than better.

TABLE VII
CLASS GAINS ON CRITERIA

Variable	Mean Score Pre-test	Mean Score Post-test	d	t	p
Human Relations	22•42	21.20	-1.22	-1.47	Ins
Prediction	35•53	36.15	•62	•70	Ins

The pre- and post-tests of achievement were not identical so that there was no measure of the amount of gain on this criterion. However, since the lectures and the text emphasized this goal of the course and since grades were determined solely on the basis of it, it can be safely assumed that significant gains were made in this area.

If the assumption that significant achievement gains were made is accepted, the hypothesis is not verified, since the gains on the other criteria were insignificant in both cases and negative in one. This reasoning implies that achievement gains as measured in this course are no indication of improvement on other criteria.

The third hypothesis stated that personality variables that predict success on one criterion predict success on other criteria. Again, an incisive test of the hypothesis cannot be made because there were no significant correlations between any of the predictors and either the absolute or the gain scores on the criteria (Tables VIII and IX). The evidence available is not in support of the hypothesis. Anxiety scores, which were negatively related to human relations attitude (and significantly when

TABLE VIII

CORRELATIONS BETWEEN PREDICTORS AND CRITERIA

(N--88)

PREDICTORS		CRITE	RIA	
	Human Relations	Prediction	Achievement	Satisfaction
Intelligence	•13 (•17)	•03 (•03)	.11 (.14)	06 (07)
Anxiety	-•22 (-•27 <sup>*</sup> )	•05 (•06)	•06 (•07)	•05 (•05)
Participation attitude	•15 (•19)	•01 (•02)	02 (02)	•16 (•19)

<sup>\*</sup>Significant at .05 level of confidence

TABLE IX

CORRELATIONS BETWEEN PREDICTORS AND GAINS ON CRITERIA

(N-80)

PREDICTORS	G <b>A</b>	INS ON CRITERIA	
	Human Relations	Prediction	Achievement
Intelligence	-•07 (-•13)	11 (21)	-•09 (-•12)
Anxiety	•01 (•15)	12 (21)	06 (08)
Participation attitude	•20 (•38 <sup>**</sup> )	-•09 (-•17)	•05 (•07)

<sup>\*\*</sup>Significant at .01 level of confidence

corrected for attentuation) had a very slight positive correlation with the other criteria. Participation attitudes, which were positively related to human relations attitudes gains (and significantly when corrected for attenu-

ation), had a slight, negative relationship with prediction gains and an even slighter, positive relationship with achievement gains. This evidence does not support the hypothesis.

It is evident from Table X that the predictors themselves were uncorrelated. There were no significant relationships among the intelligence, anxiety, and participation attitude variables.

TABLE X

CORRELATIONS BETWEEN PREDICTORS
(N-82)

	Anxiety	Participation attitude
Intelligence	.03 (.04)	.03 (.04)
Anxiety	***	17 (19)

## Sex Differences

As an additional possible predictor variable in this study, differences between male and females were checked. It is evident from Table XI (see following page) that there were no significant sex differences on either criteria or criterion gains. However, in terms of other predictors, it is of interest to note that the women were significantly more anxious than the men. Also, men were much more favorable toward class participation than were women. The difference here (critical ratio of 4.60) was highly significant.

TABLE XI
SEX DIFFERENCES ON CRITERION AND PREDICTOR VARIABLES

Variab les	Males (N85)	Females (N22)	d
Human Relations	21•22	21.00	•22
Prediction	75•95	74.83	1.12
Achievement	73•92	<b>72.</b> 05	1.87
Satisfaction	16.36	16.32	•04
Human Relations Gains	-1.14	-1.29	•15
Prediction Gains	•67	50	1.17
Achievement Gains	<b>34 • 2</b> 8	31.10	<b>3.1</b> 8
Intelligence	5•89	5 <b>•95</b>	•06
Anxiety	<b>15.</b> 86	19.75	3·89*
Participation Attitude	<b>35 •08</b>	27 • 67	7.41**

<sup>\*</sup>Significant at .05 level of confidence

<sup>\*\*</sup>Significant at .O1 level of confidence

#### INTERPRETATION

For the most part, present results agree closely with those reported in the literature. They disagree, however, with the results of a number of studies over the relationship between attitudes and achievement. Bartlett (1), Edwards (5), and Postman, Bruner and McGinnies (18) report data which tend to formulate the hypothesis that attitudes have a decided effect upon what shall be learned. The answer may lie in the inconsistency of the subject (8), possibly brought about, in part, by fluctuation of ego-involvement in the problem at hand (1). Perhaps subjects of the present study were not, in general, sufficiently involved in the issues discussed in class to bring about conflict between attitudes and achievement.

Menefee's (16) findings would tend to support the hypothesis that attitudes and ability to predict behavior are interrelated, an hypothesis which the present study does not substantiate. Perhaps ego-involvement is, once again, the missing factor.

Although the results of this study and the evidence reported in the more recent literature agree as to the lack of relationship between intelligence and achievement gains, they disagree concerning interrelationships of intelligence and absolute achievement scores. Carlson, Fisher, and Young (4), Sanua (20), and Woodrow (27) report a positive relationship while the present study reports none. Perhaps non-intellectual factors such as interest, motivation, opportunity to study, study habits, emotional conflict in study and/or examination played a greater part in the present study than in those others. Howells (11) and Ryans (19) have reported that

persistence alone can have tremendous effects. There is also the possibility that achievement tests used here measured knowledge but not understanding, the latter being by far the greater test of intelligence.

Anxiety would not be expected to have a decided effect in the average college classroom. Due to his anonymity, the anxious student is relatively "safe" and his thought processes are not substantially effected by this factor as Lefford's (13) data would lead one to believe.

If one can assume that the individual who scores higher on the Participation Attitude Scale is also the one who participates more, present results disagree with those obtained by Smith and Dumbar (22) concerning the higher intelligence of the participator. Since the relationship reported by these authors was small, it is possible that sampling error would account for the difference.

The four criteria here presented as means of evaluation of human relations training are quite comprehensive as a unit. Experimental results seem to support the contention that there is little relationship between them. Therefore, although it may prove to be somewhat inconvenient to evaluate any given human relations training program according to more than one such criterion, time and effort so spent are certainly not wasted if these findings are of any value. Use of a single criterion may very well prove success along the continuum under consideration while, in other respects, training may be not only ineffective but actually harmful as pointed out in testing the second hypothesis.

Quite possibly, the proper test battery could detect, to a useful degree, those who will profit most from any given human relations training program. From the evidence of this study, it seems certain that any such battery would be far from perfect. There are, possibly, a great number of

combinations of such traits which have little or nothing in common and yet all add up to success. A system could very easily assert that an individual would certainly fail and, yet, he may prove to be the most successful on the job. The reverse is also true. Even more so must one be wary of the individual criterion of success, at least until psychological theory has advanced far beyond its present status. Four such criteria have, in this paper, been shown to be of little or no value for such considerations.

Three hypotheses for further research immediately come to mind:

- (1) Increase of ego-involvement in principles discussed is accompanied by an increasing relationship between human relations attitudes and achievement of facts and principles.
- (2) With increasing ego-involvement in principles acting as the basis of given human relations attitudes, there is an increasing relationship between these attitudes and the ability to predict human behavior.
- (3) The individual who scores highest on a participation attitude scale is also the one who participates in class most often.

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#### SUMMARY

The present study was conducted as an attempt to (1) formulate criteria for the evaluation of human relations training, (2) discover the relationships between these criteria, (3) evaluate three predictors of individual success as measured by the original criteria, and (4) discover relationships between these predictors. The criteria for training evaluation were (1) effect on human relations attitudes, (2) effect on ability to predict behavior, (3) scholastic achievement, and (4) satisfaction with the course at hand. Predictors of individual success were (1) intelligence (2) general anxiety level, and (3) attitude toward participation in the course at hand.

Subjects were members of a college class in industrial psychology.

Instruments were objective tests developed by other workers.

Relationships between criteria for evaluation of training were so small as to make prediction from one to another little better than chance at best. Predictors of individual success proved to be of little value and, for the most part, unrelated.

It was concluded that, to be effective, evaluation of human relations training must be carried out according to a number of criteria. Further study must be conducted in search of predictors of trainee success until the best possible standard is obtained.

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