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ABSTRACT

Empirical research to support the claim of advocates of laboratory training as an effective means of training leaders and managers in communication is lacking. Further, there are some who raise serious questions about this methodology which need to be answered. This paper reports an experiment designed to investigate four questions revolving around these claims and counter claims. These are (1) the impact of laboratory training on leadership attitudes and skills, the values affecting these attitudes and skills and the concept of self as a communicator; (2) whether this impact differs from the impact of other training methods; (3) whether the results of laboratory training affect different types of people in different ways; and (4) whether there is an optimum time period for laboratory training. (Author/LG)

A STUDY OF THE IMPACT OF LABORATORY TRAINING UPON CONCEPTS OF LEADERSHIP AND COMMUNICATION

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INTRODUCTION

Effective communication is often seen as a prime requisite for effective leadership. Since educators in many disciplines have long viewed the small group as a strategic center for understanding communication dynamics and interpersonal relationships, the study of group dynamcis is one of the prime approaches to training people for effective leadership roles. While such training takes myriad forms, one of the most popular--and most controversial--is laboratory training.

Since the pioneering of Laboratory Groups by the National Training Laboratories in 1948, many business, education, and government organizations have used the method to train managers at all levels. And currently, several academic disciplines have incorporated the method into their university curricula.

The Laboratory Method is distinguished from other training methods by the learning goals involved and the processes used to obtain these goals. There is great diversity within the statements of goals by the proponents of this method, but the following summary was compiled from a variety of advocates: 1) increased self-insight or self-awareness concerning one's own behavior in a social context, 2) increased sensitivity to the behavior of others, 3) increased understanding of the types of processes that facilitate or inhibit group function, 4) heightened diagnostic skill in social, interpersonal, and intergroup situtations, 5) increased action skill, and 6) learning how to learn.[1] Although the methodology used to attain these goals is subjected to many idfferent forats, the basic processes include:

1) a face-to-face, largely unstructured group as a primary vehicle for learning, 2) planned activities involved interaction between individuals and/or between groups, 3) [illegible] and feedback analysis of information regarding what happened in the here-and-now and what effect it had, 4) dilemmas or problems for which "old ways" of behaving for most of the participants do not provide effective courses of action (and thus for which innovative or "search" behavior is required), and 5) generalization, or reformation of concepts and values based upon the analysis of direct experiences.[2]

STATEMENT OF THE PROBLEM

Amidst the great populatity of the method have come critics who question its value. Even Chris Argyris one of the founders of the National Training Laboratories, states that the "field of Laboratory education is entering an era where research is necessary so that intelligent choices can be made."[3] Particularly he advocates the investigation of the impact of the method on its participants. Empirical research to support the claims of the advocates of Laboratory Training are lacking. Maslow[4], for example, has suggested that only certain types of people may benefit. Bunker concludes that "no particular pattern could be regarded as a typical training outcome."[5] Campell and Dunnette suggest "any kind of group human relations progrma would produce similar results as those found in studies of T-groups."[6] Bales points out that changes to the individuals in a groups may apply just to group roles rather than being permanent.[7] Finally, after reviewing the studies on laboratory training, House concludes that "Unfortunately, this information is contradictory and confusing."[8]

At present, therefore, two forces are operating. On the one hand, there are those who claim that laboratory training is an effective means of training leaders and managers in communication. On the other, there are those who raise serious questions that should be answered by empirical research. Consequently, this field experiment was designed to investigate four questions revolving around these claims and counter-claims.

1. What impact does laboratory training have on
   a) leadership attitudes and skills,
   b) values affecting leadership attitudes, and
   c) concept of self as a communicator?
2. Does this impact differ from the impact of other training methods?
3. Do the results of the laboratory training affect different types of people in different ways, as Maslow hypothesizes?
4. Is there an optimum time period for Laboratory training?

RESEARCH PLAN

SUBJECTS

The subjects for the study were all students at the University of Kansas in 1971, and were enrolled in multiple sections of the following courses. 1) Human Relations in Group Interaction is laboratory course taught in the Speech Communication and Human Relations Department. 2) Cases in Human Relations, also taught in the Speech Communication and Human Relations Department, is taught strictly through the case method. 3) Problems in General Management is taught in the School of Business and uses a more traditional method of lectures, discussions, and simulations. Each class met three hours each week. All subjects volunteered to participate; and data was collected from them three times in the semester: the first day of classes, the eighth week, and the final week of the semester.

INSTRUMENTS

The data was collected on ten factors, derived from three questionnaires. The Leadership Opinion Questionnaire (LOQ) is composed of forty standardized items measuring two independent dimensions of Leadership. These are defined as follows:

Consideration (C). Reflects the extent to which an individual is likely to have job relationships with his subordinates characterized by mutual trust, respect for their ideas, consideration of their feelings and a certain warmth between himself and them. A high score is indicative of a climate of good rapport and two way communication. A low score indicates the individual is likely to be more impersonal in his relations with group members.

Structure (S). Reflects the extent to which an individual is likely to define and structure his own role and those of his subordinates toward goal attainment. A high score on this dimension characterized individuals who play a very active role in directing group activities through planning, communicating information, scheduling, criticizing, trying out new ideas and so forth. A low score characterizes individuals who are likely to be relatively inactive in giving direction in these ways.

Two previous research studies have used the LOQ with differing results. Kernan found no significant changes as a result of the laboratory experience. Beer and Leisath found significant changes; however, they had no control group for comparison.[10]

The second questionnaire was the Bales-Couch Value Profile (VP), which grew out of their observations of laboratory groups. It measures four factors, each of which is measured by ten items answered on a Likert scale, and each of which would have important implications for one's leadership and management style. 1) Agreement with Value Statement in Favor of Accepting Authority is similar to the well-known cluster usually called "authoritarianism" and is best represented by the item: "No values can be eternal; the only real values are those which meet the needs of the given moment." 3) Agreement with Value Statement Favoring Equalitarianism is represented by the item: "Everyone should have an equal chance and an equal say." It is important to note that this factor is not the opposite of Acceptance of Authority but is completely independent of it. 4) Agreement with Value Statements Favoring Individualism is best represented by the item "It is the man who stands alone who excites our admiration."[11]

The third questionnaire was a semantic differential, based on the work of Osgood, Suci and Tannenbaum.[12] The concept "Self as Communicator" was measured on the three factors identified by Osgood as 1) Evaluation, 2) Potency, and 3) Activity. Each factor was scored on a seven-point scale and was represented by the following sets of bi-polar adjectives.

(E)	Successful-Unsuccessful
(E)	Good-Bad
(E)	Incomplete-Complete
(E)	Painful-Pleasurable
(P)	Constrained-Free
(A)	Passive-Active
(A)	Slow-Fast
(A)	Simple-Complex

Finally, each time the tests were administered, each subject was asked to indicate on a seven-point scale his level of satisfaction with his course.

DATA ANALYSIS

All data were analyzed through multiple discriminate analysis in a stepwise manner.[13] First, scores on pre and post tests were contrasted to detect the impact of the training upon its participants. Second, the data from the laboratory subjects were compared with those from the Case and Management subjects. Third, an analysis was made to determine whether a participant's sex, age, work experience, or satisfaction with labpratory experience made any difference in the nature of the impact of that training upon him. Fourth, in order to test the hypothesis that laboratory training may reach a point of diminishing returns, the impact of the first half of the course was contrasted with that of the second half of the course. This was done to determine whether most of the changes in the subjects occurred in first or the second half of the semester.

RESULTS

Stepwise discriminate analysis of the mean scores presented in Table A reveal a number of similarities and differences for the Laboratory, Case, and Management Groups. All reference to statistical significance is at the .05 level.

COMPARISON OF PRE AND POST TESTS FOR EACH GROUP INDIVIDUALLY

First, it was important to discover in what ways each sample group differed at the conclusion of the study from what it had been initially. Consequently, the pre and post scores of each group individually were compared to determine if scores on the post test were significantly different from those on the pre test.

1) Significant differences for the Laboratory groups were found on three factors. They were lower for Structure, higher for Activity as Communication and higher for level of Satisfaction.

2) Comparable differences were discovered for the Management subjects. They were significantly higher on Activity as Communication and also higher in Satisfaction. Although this group, too, was lower for Initiating Structure, the difference was not significant.

3) No significant differences were found for the Case Subjects.

Consequently, it would appear that the Laboratory experience facilitates some significant changes in its participants and that the nature of these changes is approximately the same as those produced in the management group except on the factor of Structure.

COMPARISON OF LABORATORY, CASE, AND MANAGEMENT SUBJECTS

The pre test scores of the three classes were analyzed to determine in what ways the T-group subjects differed initially from those in the Case and Management groups. Then a similar analysis was made for the three groups on their post test scores to determine in what ways they differed at the end of the study.

1) The subjects in the Laboratory and Case groups tended to be rather similar, differing initially only on Acceptance of Authority. The Laboratory subjects scored significantly lower on this factor both at the beginning and at the end of the study. Their post test scores on Satisfaction were also significantly different, indicating that the Laboratory method was more satisfying than the Case approach.

2) There were greater differences between the Laboratory and Management subjects. On both the pre and post tests, subjects in the Laboratory scored significantly lower on Acceptance of Authority, lower on Structure, and higher on Consideration. In addition to this, enough change had taken place in the groups that the two additional significant differences appeared at the time of the post test. The Laboratory group's gains in Equalitarianism now differentiated it from the Management Group on that variable. Finally, the Management Group scored significantly higher on Evaluation of Self as Communicator. Apparently, the training methods used in that class had been more instrumental in improving the self-image.

COMPARISON OF AMOUNT OF SHIFT ON EACH FACTOR

The pre scores were subtracted from the post scores in order to determine the amount of shift on each factor. Discriminate analysis of these shift scores identified four significant differences between the Laboratory

Case and Management subjects. 1) The shift in Need/Value Expression was significantly greater for both the Laboratory and Case subjects than for the Management Group, which actually experienced a slight decrease on this factor. 2) The shift toward greater Equalitarianism was significantly greater for the Laboratory subjects than for those in either of the other groups. 3) The positive shifts on Evaluation of Self as Communicator were significantly greater for the Case subjects than for the Laboratory groups. 4) Both the Laboratory and Management subjects increased in Satisfaction significantly more than the Case subjects, who showed a slight decrease.

TIME EFFECT ON CHANGES

In regard to the changes which took place in the Laboratory participants, the question is often raised about when most of the changes occur, and this is a particularly important question when one tries to adapt the laboratory method to the academic semester. The nature of the Laboratory is such that it demands great adaptation at its very beginning. Consequently, as the group meets over an extended period of time there may well be a point of diminishing returns--i.e. a point after which significant changes in the group members are not taking place. Consequently, the tests used in this study were administered midway between the pre and post tests so that comparisons could be made between the shifts in first and second halves of the study. Since nine of the Laboratory group were unable to take the mid-test, the number for this analysis was reduced to forty.

Analysis of the data in Table B suggests the general trend that the greatest change occurs for most factors in the first half of the experience. This trend is statistically significant for Satisfaction and Activity as Communicator, two of the three variables on which the Laboratory subjects changed significantly.

INFLUENCE OF PERSONAL CHARACTERISTICS UPON EFFECTS OF LABORATORY TRAINING

The foregoing analysis indicates that the Laboratory method did have significant effects upon its participants. A legitimate area for investigation then was the determination, as Maslow suggests, of how these effects were affected by various personal characteristics of its members. Consequently, the data for the Laboratory group were analyzed to determine if there were differences in the group based on the following variables: 1) sex, 2) age, 3) work experience, and 4) level of satisfaction with the course. The results of this analysis are presented in Table C.

<u>SEX</u>

1) Two major factors differentiated between men and women at the outset of the study. Women scored significantly higher on Equalitarianism and Consideration. The pre-post shift did not ameliorate these differences, and they were still significantly different on these two factors at the end of the study. In fact, it is noteworthy that the pre-post movement on Consideration is in different directions, with males decreasing slightly and females increasing. Consequently, the final difference between males and females on this dimension was actually widened. In general, however, the shifts that took place on other variables tended to bring the scores of males and females closer together.

2) The amount of shift on Satisfaction was significant. While both sexes increased, females found the Laboratory experience significantly more satisfying than did males. For the Case and Management Groups there were no differences between males and females in shift on any factor.

Work Experience

Since the work environment provides one with learning experiences about leadership, it seemed important to determine whether or not the learning that takes place in a Laboratory group is affected by one's prior work experience. Consequently, the group was divided according to those who had had part-time jobs, including summer jobs, and those who had had full-time jobs. All subjects had worked at least part time.

1) Consideration is the only factor which differentiates these groups initially, with the part-time subjects scoring higher than the full-time subjects. During the study, however, the full-time subjects made slightly greater gains on this factor, so that it did not significantly differentiate between the groups at the time of the post test.

2) Both groups increased on the Equalitarianism factor, but the part-time subjects started out higher and made greater gains on this factor so that at the time of the post test, they scored significantly higher on it than did the full-time subjects. This significant shift on the Equalitarianism factor was also experienced by the Case subjects. In that group, the full-time subjects decreased in Equalitarianism while the part-time subjects increased.

3) The amount of pre-post shift on Need/Value Expression is significantly greater for the full-time subjects than the part-time ones.

Age

1) All differences attributable to age tended to isolate the 21-22 year olds as being the different ones. Initially, their scores on the Need/Value factor were significantly lower than those of the over 23 group. Then because their shift was so much less than that for the other age groups, their scores were significantly lower than both other age groups on the post test. The greatest shift toward increased Need/Value Expression was made by the over 23 group; this was also true for the Management subjects; the over 23 group shifted significantly more toward greater Need/Value Expression than did the other group.

2) The 21-22 year olds also scored significantly lower than the other two groups in Equalitarianism on the post test.

3) When the amount of shift between pre and post tests are compared, the shift of the 21-22 year olds on Acceptance of Authority is significantly different from that of the other two age groups. In fact, whereas the other groups decline on this factor, the 21-22 year olds make substantial shift toward being more accepting of authority.

Influence of Satisfaction

Although there were no differences among the three groups initially, the data in Tables A, B, and C indicate that the subjects in the Laboratory increased significantly in their satisfaction with the experience, that most this increase took place in the first half of the experience, and that women found it significantly more satisfying than did males.

Since the level of satisfaction seemed to be responsible for differential effects in the laboratory group, it was decided to compare the differences in shift on each factor for those who increased in satisfaction with those who decreased in their satisfaction level or made no change. These results are listed in Table D.

1) The stepwise discriminate analysis identified the combination of Consideration, Structure, and Acceptance of Authority as being the factors which discriminate most between these two groups, although Consideration is the only one which is significant by itself. Those who became less satisfied decreased in Consideration whereas those who increased in Satisfaction also increased in Consideration. These results might have been anticipated because of the consistent significatn correlation between Satisfaction and Consideration for People for the Laboratory subjects. When these comparisons were made for the Case and Management groups, no significant differences were found between the dissatisfied and satisfied for either group. Consequently, this difference appears unique to the Laboratory group.

GENERAL CONCLUSIONS AND DISCUSSION

1. Laboratory training does influence leadership attitudes, but with mixed results. In all three courses, Consideration was given a higher priority than Structure, and this is the general trend found in studies using the LOQ. However, the gap between the two factors is widest for the Laboratory subjects; the scores are most balanced for the Management subjects. The significance of this finding lies in the fact that the authors of the LOQ have found that "productivity and morale were higher in groups with supervisors emphasizing both patterns."[14] Consequently, the major implication of laboratory training for leadership positions is that is not only produces higher scores on Consideration, the factor which indicates a climate of good rapport and two way communication, but it also significantly reduces scores on Structure, the factor which characterizes the role of directing group activities through planning, communicating information, scheduling, criticizing, and trying out new ideas.

Because this same pattern was true of the Case subjects but was not statistically significant, the question of whether this is true for all Human Relations training needs additional research.

Furthermore, this reduction in Structure was one of the most significant differences between the Laboratory and Management groups. One may conclude then that the participation in a T-Group is most desirable when the objective is greater consideration for people, but other types of training may be necessary to increase the initiation of structure or to bring about a greater balance between Structure and Consideration.

2. The Laboratory method has more significant effect upon the values of the participants than do the other methods. It is interesting to note that when one rank orders the four values on the Bales-Couch Value Profile, all three groups rank them in the same order: 1) Equalitarianism, 2) Need/Value Expression, 3) Individualism, and 4) Acceptance of Authority. This is the order both at the beginning and at the end of the study. While the Laboratory subjects increased their scores on every value factor, they increased significantly more than the other groups on the two values which are ranked highest by all groups: Equalitarianism and Need/Value Expression. The Laboratory experience then tends to foster feelings of equality and also stresses the relativity of values which are held by the participants.

This increase in Need/Value Expression suggests that the greater potential for adaptive behavior is facilitated by the laboratory, and this may support Bunker's general conclusion that the laboratory increases the "capacity for adaptive orientation to their particular situation rather than the stereotyped enactment of an idelolgy."[15]

These value changes have some implications for leadership in that the .47 correlation between Equalitarianism and the LOQ's Consideration is significant at the .05 level. The .35 correlation between Acceptance of Authority and the LOQ's Structure is also significant at the .05 level; however, there is an interesting aspect of this latter correlation. The connection between Acceptance of Authority and Structure is significant for both the Laboratory and Case groups, but it is not significant for the Management group. This suggests some differences perhaps in perceptions of authority and/or task orientation, and further research of these differences may have some beneficial implications for leadership and management training.

3. Bolman hypothesizes that laboratory training "would be more likely to show effects on . . . self perceptions than would a more traditional approach,"[16] but the results of this study run counter to that hypothesis. While significant gains are made on Activity as Communicator by the Laboratory subjects, the same is true of the Management group. Furthermore, when the amount of shift was compared for the groups, the Management group show significantly more positive gains on Evaluation of Self as Communicator than did the Laboratory subjects. Finally, it should be pointed out that the image of Self as Communicator was better for all three groups at the conclusion of the study than it was at the beginning.

4. There was no difference in Satisfaction between the Laboratory and Management groups, but both of them were significantly more satisfies than those subjects using the Case approach. In this connection, it is interesting to note that Satisfaction correlates significantly with only two other factors in this study; the Potency (.37) and Activity (.32) dimensions of Self and Communicator, and these factors were affected least in the Case groups.

Within the Laboratory subjects, the chief distinction between those who found the laboratory satisfying and those who did not, was that the satisfied subjects increased in Consideration while the dissatisfied ones decreased in Consideration.

5. The significant changes that occur in the laboratory subjects tended to occur in the first eight of the sixteen week period. This may suggest that the length of the training can be shortened in an academic setting without altering the learning that takes place in these groups.

Effects of Laboratory training do vary with personal characteristics. Women found the experience more satisfying than did men; subjects with full-time work experience gained more in Need/Value Expression than did their part-time counterparts; and the 21-22 age group differed in their Acceptance of Authority from other age groups. The fact that this same type of analysis in the Case and Management groups did not reveal the same kinds of differences may indeed suggest that these personal characteristics are affected uniquely by the laboratory method; however, no rationale for these differential effects can be derived from this particular investigation.

7. Much more empirical research will be needed before we can make the "intelligent choices" sought by Argyris. Particularly, research is needed for laboratory training in the academic setting; for this research indicates that it has an impact on the individual, but that the impact is not as effective as other methods in shaping balanced attitudes toward leadership or enhancing one's concept of himself as a communicator.

FOOTNOTES

[1]John P. Campbell and Marvin Dunnette, "Effectiveness of T-Group Experiences in Managerial Training and Development," Psychological Bulletin, LXX (August, 1968), p. 75.

[2]Robert House, "T-Group Education and Leadership Effectiveness: A Review of the Empiric Literature and a Critical Evaluation," Personnel Psychology, XX (1967), p. 3.

[3]Chris Argyris, "On the Future of Laboratory Training," Journal of Applied Behavioral Science, III (1967), p. 154.

[4]J. P. Campbell and M. Dunnette, Ibid., p. 77.

[5]Douglas Bunker, "Individual Applications of Laboratory Training," Journal of Applied Behavioral Science, I (1965), p. 146.

[6]J. P. Campbell and M. Dunnette, Ibid., p. 87.

[7]Robert F. Bales, Personality and Interpersonal Behavior (New York: Holt, Rinehart and Winston, Inc., 1970), p. 16.

[8]R. House, Ibid., p. 3.

[9]Edwin Fleishman, Manual for Leadership Opinion Questionnaire (Chicago: Science Research Associates, 1969), p. 1.

[10]J. P. Campbell and M. Dunnette, Ibid., p.

[11]R. F. Bales, Ibid., pp. 497-499.

[12]C. Osgood, G. Sucix, and Percy Tannenbaum, The Measurement of Meaning (Urbana: University of Illinois Press, 1967), p. 53.

[13]W. J. Dixon, "BMD07M," Biomedical Computer Programs (Berkeley: University of California Press, 1967), p. 214a.

[14]E. Fleishman, Ibid., p. 8.

[15]Bunker, Ibid., p. 144.

[16]Lee Bolman, "Laboratory Versus Lecture in Training Executives," Journal of Applied Behavioral Science, VI (1970), p. 332.

Table A

Comparison of Mean Scores for Ten Factors

	Factor	Possible Score	Sample	Pre	Post	Shift (D=Post-Pre)
A.	Bales-Couch Values Profile					
	Acceptance of Authority	70	Lab (N=49)	25.6	26.7	1.1
			Cases (N=32)	30.5	30.8	.3
			Mgt. (N=73)	33.6	33.4	-.2
	Need/Value Expression	70	Lab	42.0	44.1	2.1
			Cases	38.7	41.7	3.0
			Mgt.	43.7	43.5	-.2
	Equalitarianism	70	Lab	45.7	49.4	3.7
			Cases	48.3	50.1	1.8
			Mgt.	42.4	43.6	1.2
	Individualism	70	Lab	37.2	40.1	2.9
			Cases	37.7	39.9	2.2
			Mgt.	38.9	40.3	1.4
B.	Leadership Opinion Questionnaire					
	Consideration	80	Lab	59.9	60.5	.6
			Cases	58.9	60.1	1.2
			Mgt.	54.9	53.9	-.9
	Structure	80	Lab	42.9	39.2	-3.7
			Cases	44.4	41.7	-2.7
			Mgt.	46.4	44.6	-2.1
C.	Semantic Differential for "Self as Communicator"					
	Evaluation	28	Lab	19.8	20.5	.7
			Cases	18.9	20.1	1.2
			Mgt.	20.5	21.4	.9
	Potency	14	Lab	9.3	9.8	.5
			Cases	9.4	9.7	.3
			Mgt.	9.9	10.4	.5
	Activity	21	Lab	14.6	15.6	1.0
			Cases	14.5	15.0	.5
			Mgt.	14.5	15.5	1.0
D.	Satisfaction Question					
	Satisfaction	7	Lab	4.6	5.7	1.1
			Cases	4.4	4.3	-.1
			Mgt.	4.2	5.1	.9

Table B

Comparison of Pre-Mid and Mid-Post Difference Scores

Variable	D Mid-Pre	D Post-Mid
Acceptance of Authority	1.5	1.4
Need/Value Expression	.4	.6
Equalitarianism	2.8	.6
Individualism	1.9	2.1
Consideration	-.4	.0
Initiating Structure	-1.5	-.5
Self as Communicator (Evaluation)	1.0	.4
Self as Communicator (Potency)	1.0	.4
Self as Communicator (Activity)	1.3	.1
Satisfaction	1.2	.2

Table C
Mean Scores of Laboratory Group Analyzed in Individual Characteristics

Factor	Possible Score		Sex		Age			Work Experience	
			M	F	19-20	21-22	23+	Part-time	Full-time
			N=24	N=25	N=17	N=26	N=6	N=38	N=11
Acceptance of Authority	70	Pre	24.9	26.3	27.7	26.4	22.0	25.9	24.7
		Post	26.8	26.5	24.1	29.5	21.7	26.7	26.6
		Shift	1.9	.2	-1.6	3.1	-.3	.8	1.9
Need/Value Expression	70	Pre	40.7	43.2	44.1	39.6	46.1	41.8	42.4
		Post	44.3	43.9	46.2	40.4	54.0	43.0	48.0
		Shift	3.6	.7	2.2	.8	7.9	1.2	5.6
Equalitarianism	70	Pre	41.9	49.3	48.2	42.5	51.8	46.9	41.1
		Post	46.0	52.6	52.8	46.0	53.8	50.9	44.9
		Shift	4.1	3.3	4.6	3.5	2.0	4.0	3.8
Individualism	70	Pre	38.0	36.4	37.8	37.3	34.8	37.4	36.6
		Post	40.1	40.1	42.4	39.6	36.0	40.7	38.0
		Shift	2.1	3.7	4.4	2.3	1.2	3.3	1.4
Consideration	80	Pre	76.7	83.0	81.8	79.4	77.0	81.0	76.2
		Post	76.6	84.2	82.5	79.2	80.7	81.5	77.0
		Shift	-.1	1.2	.7	-.2	3.7	.5	.8
Initiating Structure	80	Pre	64.1	61.6	61.6	63.9	61.8	62.4	64.4
		Post	59.6	58.8	57.5	60.3	59.1	58.2	62.3
		Shift	-4.5	-2.9	-4.7	-3.6	-2.7	-4.2	-2.1
Self as Communicator (Evaluation)	28	Pre	20.2	19.4	19.1	20.5	18.5	20.1	18.7
		Post	21.5	19.5	20.1	20.7	20.3	20.6	20.0
		Shift	1.3	.1	1.0	.2	1.8	.6	1.3
Self as Communicator (Potency)	14	Pre	9.9	8.7	8.9	9.5	9.2	9.2	9.7
		Post	10.4	9.3	9.5	10.1	9.4	10.0	9.3
		Shift	.5	.6	.6	.6	.2	.8	-.4
Self as Communicator (Activity)	21	Pre	14.5	14.6	14.4	14.8	14.0	14.6	14.4
		Post	16.0	15.2	16.0	15.6	14.5	15.8	14.7
		Shift	1.5	.6	1.6	.8	.5	1.2	.3
Satisfaction	7	Pre	4.9	4.3	4.4	4.7	4.7	4.6	4.6
		Post	5.3	6.1	5.6	5.6	6.2	5.5	6.4
		Shift	.4	1.8	1.2	.9	1.5	.9	1.8

able D

Comparison of Pre-Post Diff ence res for the Satisfied and Dissatisfied

Factor	- N=19	+ N=30
Acceptance of Authority	2.6	0.1
Need/Value Expression	1.7	2.4
Equalitarianism	4.2	3.4
Individualism	2.0	3.5
Consideration	-2.1	2.3
Initiating Structure	-5.1	-2.8
Self as Communicator (Evaluation)	1.2	.3
Self as Communicator (Potency)	.4	.7
Self as Communicator (Activity)	1.1	1.0
Level of Satisfaction	-.8	2.3