

# AN EVALUATION OF A LONG-TERM MANAGEMENT TRAINING PROGRAM

*a study of the effects  
of AMA training program  
for college graduates*

The purpose of this investigation was to determine the effectiveness of an eight-month management training program for college graduates conducted by the American Management Association. The program was started in 1967 and is still operating.

The objectives of the program are

1. To present the type of education, training and concentrated drill that will prepare young people in the philosophies, principles, skills and actual tools of management,
2. To make the participants highly desirable candidates for employment in any kind of organization they wish to enter,
3. To help the participants attain an intellectual maturity, emotional stability and leadership capability more quickly than could be attained at other sources.

The teaching/learning techniques utilized are broad and flexible. Traditional methods, such as lectures, small group sessions and films, are used along with more recent learning methods, such as programmed instruction, video-tape replay, business simulations and T-group sessions.

There is no on-campus faculty. Rather, practicing managers, consultants, labor leaders, government officials and educators are called in to discuss topics relevant to particular program segments. At the beginning of the program each participant is assigned to a small group, headed by an on-campus preceptor, who is responsible for facilitating individual and individual-in-the-group development and maintaining program continuity.

The course also includes a planned self-development program designed to enhance growth in areas such as emotional stability, responsibility, creativity, etc. This emphasis on individual growth and the use of professional managers rather than academicians as instructors sets the program apart from the typical business school approach to teaching management. The uniqueness of the program, therefore, as well as the

fact that there have been few evaluation studies of long-term courses for potential managers (see a review of training evaluation studies in Miner<sup>1</sup>), necessitated the evaluation of the effects of this program.

## EVALUATION CRITERIA

The effects of any training program, of course, must be evaluated in terms of some criterion. Martin<sup>2</sup> distinguishes between internal and external measures of training effects. Internal criteria are measures linked directly to the content and process of the training program, but which have no direct connection to actual job behavior, while external criteria are those linked directly to job behavior. Similarly, Kirkpatrick<sup>3</sup> makes a distinction among four types of training outcomes — reaction, learning, behavior and results. Using Martin's terminology, "reaction" and "learning" can be viewed as internal criteria and "behavior" and "results" as external criteria.

The classification systems described by Martin and Kirkpatrick suggest a sequence for training evaluation. To fully understand the program processes and its effects, it would seem necessary to evaluate first the program's effect on internal criteria, essentially asking the question, "What specific changes in the participant does the program produce?" Then, as a second or later step, one would use external criteria to answer the question, "Are these changes or is the program's resultant product related to improved job behavior?" Only by first discovering the effect of the program on the participant can one fully understand how the program affects organizational behavior.

As the first step in this type of evaluation procedure, the present study sought to ascertain what specific changes in the participant were produced by the program. More specifically, the investigation used the internal criterion of "learning" to evaluate the program. According to Schein,<sup>4</sup> "learning to be a businessman is a process

VIRGINIA E SCHEIN  
*Manager, Personnel Research  
Life Office Management Association  
New York, New York  
formerly  
Senior Research Associate  
American Management Association*

of acquiring (1) a certain body of knowledge, (2) skills in implementing this knowledge and (3) the attitudes and values that define how and when and for what ends the knowledge and skills are to be used (p 602)'' Since the distinctive quality of the program is its emphasis on personal growth, learning in the form of attitude and value change was used as the internal criterion of program effectiveness

In addition to the evaluation of the impact of the program on its participants, a secondary goal of the study was to determine if predictors of change could be identified Were there certain types of individuals who benefited more from the program than other types and, if so, could variables which identified these types be found? If such predictors could be established these measures could be used as selection tools so as to choose participants who would be most likely to profit from the program

The purpose of the investigation, therefore, was to assess the impact of the learning experience on the participants in terms of the changes in interest, attitude and personality characteristics A secondary purpose of the study was to determine if predictors of these changes could be found

## METHOD

The sample was composed of 124 males who were members of the first four classes (1967-1968) There were 32 Ss in Class 1, 14 in Class 2, 48 in Class 3, and 31 in Class 4 The average age of the participants was 24, with an age range of 21 to 31 years All of the Ss were college graduates, 58 per cent of whom had majored in business or a business-related subject, and seven per cent of the participants had completed some graduate work.

## MEASUREMENT INSTRUMENTS

The following instruments, used to measure the changes which occurred during the training period, were administered during the first week and a half of the program and then readministered eight months later, just prior to graduation

The Study of Values, Strong Vocational Interest Blank (SVIB), Guilford-Zimmerman Temperament Survey (GZTS), Leadership Opinion Questionnaire (LOQ), I-E Scale<sup>5</sup>, and three questionnaires designed to measure attitudes toward management —Influence Questionnaire<sup>6</sup>, Public Opinion Questionnaire (POQ III)<sup>4</sup>, and a portion of the Participant Information Survey (PIS), developed by the American Management Association

The following measures, evaluated in terms of their ability to predict the changes that occurred, were administered during the first week and a half of the program

Adaptability Test, Otis Self Administering Test of Mental Ability, Miller Analogies Test, California Test of Personality, Edwards Personal Preference Schedule (EPPS), Gordon Personal Inventory and Profile, Biographical Inventory<sup>7</sup>, and a portion of the Participant Information Survey dealing with previous business experience

## DATA ANALYSIS

Change was analyzed by determining the significance of the difference between the pre- and post-test scores, using a two-tailed t test for differences between non-independent means The potential predictors of change were evaluated by correlating the predictors with those changes or difference scores which had been found to be significant Before computing these correlations, however, a principal components analysis of the 41 item Biographical Inventory and eight item portion of the PIS was performed, using varimax rotation and an eighteen-values-greater-than-one criterion for selection of factors. The highest loading item on each of the 18 resulting factors was determined and only these 18 background items were included in the correlation matrix along with the other predictors

## RESULTS

The results revealed that significant changes in interest, attitude and personality characteristics occurred among the

participants during the eight-month program According to Table I, there were significant differences between the pre- and post-test scores on 32 out of 74 subtests used A closer examination of these significant differences revealed that they could be meaningfully grouped into five general areas of change Using these groupings, the result can be described as follows

### 1 LEADERSHIP STYLE

At the conclusion of the program, the participants expressed a greater concern for and faith in their peers and subordinates than they had at the beginning of the program After their training, they decreased the extent to which their supervisory leadership style would be characterized by directing group activities and increased the extent to which their style would be characterized by respect for subordinates' ideas and consideration of their feelings In addition, they increased their faith in the worker's potential and his desires for responsibility and changed their personal relations orientation, in the direction of greater tolerance of people and an increased faith in social institutions

### 2 ATTITUDE TOWARD BUSINESS

The participants perceived business institutions as more ethical and socially responsible after the training experience than before this experience At the conclusion of the program they favored greater freedom from union intervention in business affairs and a greater expansion of corporate responsibility Furthermore, they expressed more trust in business, increased their belief that one can be moral as a manager, and decreased their desire or need to become involved, as a private citizen, in local community activities. A more positive attitude toward business was also evidenced by their greater identification with business and professional men and an increase in their estimation of average starting salaries in business

### 3 SELF-CONFIDENCE

The class members exhibited greater self-esteem, composure and desire for

Table I

PRE- AND POSTTEST MEANS AND SIGNIFICANCE OF DIFFERENCE SCORES

Test	Pretest Mean	Posttest Mean
<b>GZTS</b>		
General Activity	18 15	20 58**
Restraint	16 89	17 19
Ascendancy	18 23	20 69**
Sociability	20 00	21 98**
Emotional Stability	17 76	20 04**
Objectivity	18 04	19 40**
Friendliness	14 11	13 64
Thoughtfulness	18 62	19 39*
Personal Relations	17 54	19 79**
Masculinity	19 31	20 01
<b>Study of Values</b>		
Theoretical	39 94	40 99
Economics	47 51	47 96
Aesthetics	34 93	36 15*
Sociability	37 68	36 50
Political	45 48	45 67
Religious	33 71	32 90
<b>LOQ</b>		
Structure	51 35	48 59**
Consideration	56 14	57 99**
<b>I-E Scale</b>		
	7 54	5 74**
<b>POQ</b>		
1 Management – Labor Relations	13 19	12 57*
2 Business – Government Relations	22 83	22 20
3 Corporate Responsibility	12 02	11 33**
4 Relations to Society	11 29	10 84**
5 General Cynicism	22 13	22 79
6 Amorality of Managerial Role	8 27	7 55*
7 Classical Management Theory	10 72	10 44
8 General Conservatism	11 58	11 21
9 Change and "Cosmopolitanism"	25 50	26 33
10 Faith in Workers	9 36	8 01**
11 Belief in Group Incentives	5 30	5 14
12 Belief in Group Decision Making	12 19	12.36
13 Interpersonal Orientation	7 75	7 75
14 Right to Privacy	9 73	10 18
15 Cynicism About How to Get Ahead	7 41	7 32
16 Cynicism About Conformity Pressures	6 48	6 55
17 Specialization vs General Skills	6 94	6 47*
18 Corporate Size	2 32	2 48

Table I – Continued

PRE- AND POSTTEST MEANS AND SIGNIFICANCE OF DIFFERENCE SCORES

Test	Pretest Mean	Posttest Mean
Influence Questionnaire	43 57	41 59
SVIB		
Public Speaking	60 90	61 34
Law	62 60	61 58
Business Management	63 61	62 20*
Sales	57 61	60 15*
Merchandising	62 02	62 37
Office Practices	52 69	54 05
Military	49 45	49 09
Technical Supervision	57 62	55 25*
Mathematics	47 88	49 38
Science	45 95	44 79
Mechanics	46 56	46 56
Nature	42 03	44 20**
Agriculture	46 61	48 34
Adventure	60 07	63 82**
Recreational Leadership	54 31	54 66
Medical Service	53 38	51 61
Social Service	57 46	57 78
Religious Activity	50 57	50 49
Teaching	52 06	54 58**
Music	51 26	53 04**
Art	52 58	55 47**
Writing	52 97	55 06**
AACH	41 28	42 83*
DIV	58 53	59 95*
MO	48 23	49 49
OIE	36 51	33 66**
OL	61 20	63 05*
PIS		
Free Enterprise	47 18	48 48
Profit	67 32	68 61
Advertising	39 99	39 75
7a Salary	3 75	4 30**
7b Expected Salary	5 72	5 79
7e Salary Importance	3 13	3 09
8 Community Activities	3 99	3 84*
9 Cultural Activities	3 38	3 35
10 Student – Businessman Discussion	4 70	4 73

Note Ns for significance tests range from 68-108 (missing pre-and/or posttest data)

\* Pre-posttest mean difference score significant at .05 level

\*\* Pre-posttest mean difference score significant at .01 level

reflectiveness when they left the program than when they entered it. They expressed a stronger belief that events and rewards were contingent upon their own behavior rather than upon the actions of more powerful others or upon chance. They were more optimistic and exhibited more evenness of mood and mental poise. In addition, they became less self-centered and sensitive and placed more value on thinking than overt activity.

#### 4. NEED FOR SOCIABILITY AND ASCENDANCE

The participants had a greater desire to form relationships with people and groups and to exert a leadership role in these relationships after the experience than before it. At the end of the training period, the class members were more extroverted and interested in sales

They exhibited a greater tendency to lead rather than follow and changed their general activity orientation, in the direction of a more rapid pace of activities, efficiency and enthusiasm.

#### 5. DIVERSITY OF INTEREST

The class members exhibited a wider range of interests at the conclusion than at the beginning of the program. After the training period, the participants placed a greater value on aesthetics and, in particular, they became more interested in nature, art, music, adventure, teaching, writing and academic achievement and exhibited a decreased but still above average interest in business management and technical supervision. They also increased their belief that a manager should be a generalist rather than a specialist.

#### PREDICTORS OF CHANGE

The results also revealed that predictors of these changes could be identified. Of the 32 significant changes, 26 were related significantly ( $P < .05$ ) to one or more of the predictor variables. The average absolute value of these significant correlations was .25. The measures of background or past experience, in particular the Biographical Inventory items, were better predictors of change than either the intelligence or the personality measures. Twenty-four out of the 32 changes were related significantly to one or more of the 18 background items ( $\bar{r} = .26$ ), whereas only three changes were related to one or more of the three intelligence tests ( $\bar{r} = .24$ ) and only 11 changes related to one or more of the 26 personality subtests ( $\bar{r} = .24$ ). Table II shows the predictive validities of the six background items which were related to four or more of the significant change scores, arranged according to area of change.

#### DISCUSSION

The results revealed that meaningful changes in the participants did occur during the eight-month management training program and that these changes seemed to correspond roughly to the objectives of the program. The more considerate leadership style and positive attitude toward business seem to have prepared the participants, in part, "in the philosophies, principles, skills and actual tools of management." The increase in diversity of interest should "make the participants highly desirable candidates for employment in any kind of organization they wish to enter," and the increased self-confidence and need for sociability and ascendancy are improvements in "intellectual maturity, emotional stability, and leadership capability." Thus, these results suggest that the program, utilizing exposure to the principles and practices of professional management and a programmatic self-development program, has been successful in producing significant interest, attitude and personality changes and these changes are consistent with the objectives of the program.



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**Table II**  
**CORRELATIONS BETWEEN BACKGROUND MEASURES AND SIGNIFICANT CHANGE SCORES**

Significant Change Scores	Background Variables					
	Education Level	No of Colleges Attended	Family Affluence	Age of First Drink	Self Estimate	Social Interest
Leadership Style GZTZ-P POQ-10		- 21	- 38 28			
Attitude Toward Business POQ-1 SVIB-OL	26			26		
Self-Confidence GZTS-0 GZTS-T I-E Scale	25		- 27 25			
Need for Sociability and Ascendance GZTS-A SVIB-Scales SVIB-OIE	27 - 24 27				- 23	- 25
Diversity of Interest POQ-17 SVIB Tech Sup Advent Art Writing AACH DIV	- 22			19 26 22	23 25 24	30 28 33

Note All correlations entered in the table are significant at the .05 level, Ns range from 78 to 108

Having established the existence of these changes, further research is now needed to determine if these changes are associated with job success. This second phase of the research project would relate the interest, attitude and personality changes to external criteria, such as supervisory ratings, salary increases and promotions.

In addition, the importance of these results points up the need for a control group study. To verify that the changes were a function of the training experience, rather than other factors such as maturation, test-taking experience or group living, it would be necessary to compare these changes with those that take place over the same time period among a group of individuals whose past and present experiences are similar to those of the participant but who are undergoing an educational experience

which is dissimilar to the present training program.

#### PERMANENCY OF CHANGE

The results also suggest the need for further study of these 124 participants to determine the permanency of these changes. Some investigators have found that interests, attitudes, etc., altered by a course of study, often revert back to their original level when the participants leave the course environment. The present results would be even more meaningful if the changes could be shown to be long-lasting ones.

Finally, the results revealed that predictors of these changes could be identified. The findings suggest that measures of background and past experience can be used to select those applicants who will most benefit from the training program. Since this investigation was of

an exploratory nature, several additional research studies are necessary to definitely establish the practical utility of these predictors. For example, the correlates of change should be studied within homogeneous subsets of the sample, defined by the initial test score, to ascertain if the relationships vary as a function of the pretest score<sup>8</sup>. Also, the relationships between measures and the change scores should be investigated, as well as studying the validity of these predictor variables within a new sample.

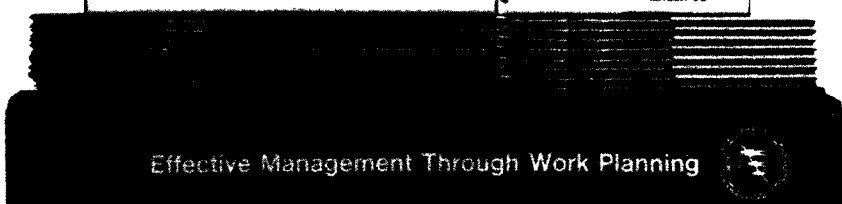
#### NOTE

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