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A STUDY OF THE BUSINESS AND INDUSTRIAL MANAGEMENT PROGRAMS AT COLLEGE OF SAN MATEO.

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THIS SURVEY CORRELATES GOALS, CERTAIN CHARACTERISTICS, AND JOB STATUS OF STUDENTS IN THE COLLEGE'S BUSINESS MANAGEMENT AND INDUSTRIAL MANAGEMENT PROGRAMS IN AN EFFORT TO LEARN FROM THE STUDENTS IF THE CURRICULUMS MEET THEIR NEEDS. THE QUESTIONNAIRE WAS COMPLETED BY 746 (67 PERCENT) OF THE STUDENTS IN THE TWO MANAGEMENT PROGRAMS. THE PRINCIPAL CONCLUSIONS WERE (1) MORE THAN HALF THE STUDENTS WERE SEEKING A CERTIFICATE OF COMPLETION, (2) AS THE LEVEL OF EDUCATION DECREASED OR THE AGE INCREASED, THE PROBABILITY OF WORKING TOWARD A CERTIFICATE INCREASED, (3) THE PROGRAMS WERE MOST ATTRACTIVE TO EMPLOYEES OF LARGE FIRMS, (4) MOST STUDENTS WERE IN NONSUPERVISORY POSITIONS AND HAD HELD THEIR JOBS FOR ABOUT FOUR YEARS, (5) ALTHOUGH MOST STUDENTS FELT THE PROGRAMS WERE OF AT LEAST SOME HELP, THERE WAS NO GENERAL AGREEMENT ON HOW TO IMPROVE THEM, (6) GREATER SCOPE AND DEPTH IN THE COURSES AND IMPROVED INSTRUCTION APPEARED TO BE NEEDED, (7) THE UNEMPLOYED AND YOUNGER STUDENTS HELD THE PROGRAMS IN LOWER REGARD THAN DID THOSE WORKING FOR ADVANCEMENT, (8) THE MOST POPULAR TEACHING METHODS WERE LECTURE, CLASS DISCUSSION, GUEST SPEAKERS, CASE STUDIES, AND SMALL-GROUP DISCUSSIONS, AND (9) THOSE WHO REGARDED THE PROGRAM MOST HIGHLY PREFERRED TEACHING METHODS WITH A MAXIMUM OF STUDENT INVOLVEMENT. (HH)

COLLEGE OF SAN MATEO

RESEARCH REPORT

1968-3

A STUDY OF

THE BUSINESS AND INDUSTRIAL MANAGEMENT PROGRAMS

AT COLLEGE OF SAN MATEO

By Dr. Frank C. Pearce

SAN MATEO JUNIOR COLLEGE DISTRICT
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A STUDY OF THE BUSINESS AND INDUSTRIAL MANAGEMENT PROGRAMS AT COLLEGE OF SAN MATEO

INTRODUCTION

The Business Management and Industrial Management Programs offered through the Evening College at the College of San Mateo have been designed to prepare persons for supervisory or management positions in business and in industry or to enhance the skills of persons currently holding such positions. During the past ten years these programs have grown steadily. In 1958 there were 614 students enrolled in 14 courses, while in 1968 there were 1118 students enrolled in 20 courses. The curriculum has been prepared with the advice and counsel of key management personnel from some of the most important firms in the college service area. The programs have been as well conceived as one could expect. Thus, the next logical question to consider in order to further improve the programs is: "Has this curriculum met the needs of the students?"

There are two basic approaches in seeking answers to this question:

1. Learn what the students think of the adequacy of the programs, and
2. Assess the progress and performance of the students in seeking and advancing in supervisory or management positions.

This survey has chosen the former approach.

PURPOSE

This survey provides an overview of the goals, individual and occupational characteristics of students in the Management Programs, and their influence, if any, upon an assessment by students of the adequacy of these programs.

OBJECTIVES

1. To describe the individual and occupational characteristics of persons who enroll in courses in the Management Programs.

2. To identify and describe the goals students hope to achieve by entering the Management Programs.

3. To assess the feelings that students have about the adequacy of their courses and instruction.

4. To assist in the identification of new courses and emphases that need to be developed as well as the elimination or revision of courses that no longer meet the needs of the students.

5. To aid in the determination of new types of educational experiences that might be relevant for this particular student population.

PROCEDURE

Through the leadership of Mr. Leland H. Mahood, a questionnaire was developed. The Advisory Committee modified and revised the content to insure that the questions were adequate. A pilot test involving about 60 students was conducted, and revisions were made in the questionnaire to insure clarity and validity. Instructors in each of the program classes then administered the questionnaire; schedules were then edited

and coded by the staff of the Evening College, and preliminary analysis was made at the College of San Mateo Computer Center.

FINDINGS

Questionnaires were completed by 746 students enrolled in the Management Programs. This represented 67 percent of the total enrollment of 1118 students in the programs. The majority of these students (406 or 54.6 percent) were working toward a Management Certificate, while 203 (27.3 percent) sought no certificate, and 135 (18.1 percent) had not decided whether they would or would not seek a certificate. It was also noted that 310 (41.6 percent) were working toward an Associate in Arts Degree, 175 students (23.5 percent) were seeking a more advanced degree, while the remaining 261 students specified no degree plans. Only 26 of the students surveyed indicated they were concurrently enrolled in day classes.

SELECTED CHARACTERISTICS OF PROGRAM STUDENTS

Through Table I it was noted that nearly nine out of ten students in the Management Program were men. About 11 percent were twenty-one years of age or under, 20 percent between twenty-two and twenty-five, 40 percent between twenty-six and thirty-five, and 29 percent were over thirty-five years of age. In effect, two thirds of all students in the program were over twenty-five years of age, which would suggest the program was serving a relatively mature clientele. It was noted that the majority of students (68 percent) claimed to have completed some college, about 6 percent had an Associate of Arts Degree, and a few more (10 percent) had a Bachelor of Arts degree. Approximately 15 percent (113 students) had limited their educational experiences to high school. It would seem that the program was attracting students with all kinds of educational backgrounds, except for those who had not completed high school since only one percent of the students in the program had less than a high school education. It was also found that 347 (46 percent) of the program students had taken part in other formal education programs.

Generally, students who had acquired a college degree were the least likely to seek a Management Certificate. As the level of education decreased, the probability of seeking a certificate increased. Table I also shows that males were somewhat more likely to pursue a certificate than were females, while students over twenty-five were more likely to seek the certificate than students under twenty-five years of age.

TABLE I - SELECTED CHARACTERISTICS OF STUDENTS
AND THEIR INTENTION TO WORK TOWARD A MANAGEMENT CERTIFICATE

	Working Toward a Certificate						
	YES		NO		UNDECIDED		
CHARACTERISTICS	#	%	#	%	#	%	Total
Sex							
Males	372	56.4	170	25.8	118	17.8	660
Females	34	40.4	33	39.2	17	20.2	84
Age							
21 or under	14	17.5	46	57.5	20	25.0	80
22 to 25	69	46.6	48	32.4	31	20.9	148
26 to 35	186	62.6	61	20.5	50	16.8	297
36 and over	136	62.7	48	22.1	33	15.2	217
Education							
High School not completed	7	70.0	1	10.0	2	20.0	10
High School Completed	59	57.2	20	19.4	24	23.3	103
Some College	300	59.1	117	23.0	88	17.3	505
A.A. Degree	18	37.5	21	43.7	9	18.7	48
College Graduate	22	28.5	43	55.8	12	15.5	77

STUDENT CHARACTERISTICS COMPARED TO PERSONAL GOALS

Another aspect of the students' goals was explored by asking why they were enrolled in the program. It was found that 140 (18.8 percent) were seeking better preparation for their current jobs, 449 (60.4 percent) felt the program would help them prepare for future opportunities, 111 students (14.9 percent) saw their courses as a means for gaining personal growth or enrichment, 22 (3.0 percent) said the course was required for a degree, and 21 (2.8 percent) provided miscellaneous reasons for participation.

It was found through Table II that there were no differences between the reasons given by males and females for enrollment in the program, nor were the reasons between the various age groups significantly different. As the amount of education a student had completed increased, however, the more likely he was to give reasons such as, "better preparation for my current job," or "personal growth." On the other hand, those who had completed the least amount of education tended to be most concerned with preparation for future opportunities.

Apparently, students who were not seeking certificates were improving their skills for their current jobs, while those seeking certificates felt they were preparing for future opportunities. The certificate seemed to represent to these students a means for opening additional occupational opportunities. This was the same finding noted for persons seeking an A.A. degree, who were also more likely to give future opportunities as the prime reason for taking classes. Two out of five students were seeking an A.A. degree, one out of five were seeking a B.A. degree, and the remainder did not aim for a college degree.

Students pursuing a certificate in one of the Management Programs, generally, intended to earn an A.A. degree also. Students who did not want the certificate usually had or were seeking a four-year degree. Men tended to seek an A.A. or an A.B. degree more often than did women in the Management Programs. As would be expected, there was a direct relationship between age and the desire to have a degree; that is, as age increased, the probability of seeking any college degree decreased.

TABLE II - STUDENT CHARACTERISTICS
ACCORDING TO THEIR PROGRAM GOAL

CHARACTERISTICS	Improvement for Current Job #	%	Prepare for Future #	%	Personal Growth #	%	Other #	%	TOTAL
Sex									
Males	120	18.1%	408	61.6%	96	14.5%	35	5.4%	659
Females	20	23.8	41	48.8	15	17.8	8	9.4	84
Age									
21 or under	11	14.1	40	51.3	10	12.8	17	21.8	78
22 to 25	25	16.8	96	64.8	19	12.8	8	5.3	148
26 to 35	59	19.8	188	63.2	38	12.7	12	3.9	297
36 or over	44	20.0	124	56.6	44	20.0	6	2.6	218
Education									
High School	17	15.2	83	74.1	12	10.7	-	-	112
Some College	91	18.0	317	62.8	69	13.7	28	5.5	505
A.A. Degree	12	25.0	19	39.6	9	18.7	8	16.7	48
College completed	20	26.0	30	39.0	20	26.0	7	9.0	77
Seeking Certificate									
YES	56	13.8	288	70.9	54	13.3	8	19.7	406
NO	50	24.9	80	39.8	41	20.4	30	14.9	201
UNDECIDED	33	24.6	80	59.7	16	11.9	5	3.7	134
Seeking College Degree									
YES, A.A. Degree	37	11.9	224	72.2	37	11.9	12	3.7	310
YES, B.A. Degree	31	17.8	89	51.1	25	14.4	29	16.7	174
NO	71	28.2	131	52.0	48	19.0	2	7.9	252

Although there were only twenty-six students (3 percent) in the program who were also taking day classes, it was noted that most of them (25) planned to get a college degree -- 16 planned to get a Bachelor of Arts Degree and 9 were working toward an Associate of Arts Degree. Moreover, six planned to obtain a Management Certificate.

The question which seemed relevant at this point was, "How many classes were students taking in the evening program?" It was found that 521 (70 percent) were enrolled in one course only, 155 students (21 percent) were enrolled in two courses, and 39 (6 percent) were enrolled in more than two courses, and the remaining 31 students failed to answer this question. About 423 (57 percent) were enrolled in their first course or had completed one course, 200 students (27 percent) had completed between two and five courses, 87 (12 percent) completed between six and nine courses, and ten or more courses had been completed by 11 students. Since the number of courses needed to complete either program was eight, it would seem that approximately 20 percent of the students enrolled would become or were eligible for a certificate during any particular school year.

OCCUPATIONS OF PROGRAM STUDENTS

Another general area of student characteristics considered in this study was that dealing with the students occupations. It was found that 690 of them (92 percent) were employed full time, 28 students (4 percent) were employed part time, 15 (2 percent) were not employed, and 13 students did not answer this question. The firms where students were employed represented a very broad spectrum of industry. Specifically, Table III shows the names of the firms where students were employed and the number of students employed in each firm. United Airlines had the largest number of students (117) enrolled, followed by Pacific Telephone and Telegraph with 47 students enrolled.

TABLE III - FIRMS EMPLOYING STUDENTS IN THE PROGRAMS

Firm Name	Number of Students	Firm Name	Number of Students
American Airlines	8	Lockheed	6
American Can Company	6	Macy's	1
American Telephone & Telegraph	1	Mills Memorial Hospital	1
Airborne Freight	1	National Seal	1
Ampex Corporation	13	Naval Shipyard	10
Applied Technology	1	Otis Elevator	1
Armour & Company	2	Pacific Gas & Electric	8
Atkinson, Guy F. Company	1	Pacific Telephone	47
Bank of America	3	Peninsula Hospital	3
Beckman Instruments	4	Polaroid Corporation	1
Buckbee Thorne	1	Precision Instruments	1
California, State of	15	Raychem Corporation	9
Cal-West Electric	1	Redwood City, City of	2
Chrysler Factory	1	Raytheon	10
Coca Cola	1	Safeway	5
Dalmo-Victor	15	San Bruno, City of	2
Del Monte	1	San Mateo, City of	4
Delta Airlines	4	San Mateo, County of	6
Di Giorgio Corporation	1	Schlage Lock Company	21
DuPont Company	1	Stanford	16
Eimac-Varian	10	Standard Oil	11
Federal Aviation Adm.	1	Swift & Company	1
General Brewing	1	Trans-World Airlines	7
Hewlett-Packard	12	Union 76	1
Hearst	2	United Air Lines	117
Johnson & Johnson	1	U. S. Army	3
Lenkurt Electric	21	U. S. Post Office	4
Leslie Salt	1	United California Bank	1
Liquid Carbonic	1	Wells Fargo Bank	4
Litton Industries	6	Western Electric	1
Varian	4	Western Union	1

Occupational characteristics were also examined in terms of the number of full-time employees from each firm represented. It was noted that over one half of the students were employed by firms with 1000 or more employees, while one student in five came from a firm employing less than 100 full-time employees.

Firm's Total Number of Employees	Number of Program Students	Percent
10,000 or more	152	20.4%
5,000 to 10,000	99	13.2
1,000 to 5,000	142	19.0
500 to 1,000	72	9.7
100 to 500	98	13.0
Under 100	137	18.5
Unknown	46	6.2
TOTAL	746	100

Table IV extends these findings to the type of firms represented. Transportation (primarily airlines) and electronics had the largest number of program students, and insurance and financial firms had the lowest student representation. One would assume that the larger firms had the greater management opportunities, which was generally supported; however, several exceptions were noted. For example, the majority of the students in manufacturing, construction, insurance, retailing, wholesaling, and service functions were from relatively small firms.

About 303 students did not indicate the principal type of work they performed. Among those who did respond, it was found that sales and mechanic or trade journeyman functions were the most common. For the most part, women held secretarial or clerical positions although 33 men were engaged in clerical work.

TABLE IV - SIZES OF VARIOUS TYPES OF INDUSTRIES REPRESENTED IN PROGRAM

	Number of Full-Time Employees						
	5,000 or More		500 to 5,000		Under 500		
TYPE OF FIRM	#	%	#	%	#	%	Total
Financial	6	54.5%	4	36.4%	1	9.1%	11
Transportation	118	76.6	22	14.3	14	9.1	154
Electronics	35	27.1	69	53.5	25	19.4	129
Manufacturing	7	8.1	39	45.3	40	46.6	86
Construction	6	23.1	7	26.9	13	50.0	26
Utilities	39	75.0	9	17.3	4	7.7	52
Insurance	2	25.0	4	50.0	2	25.0	8
Retailing	7	15.9	10	22.7	27	61.4	44
Wholesaling	1	4.5	2	9.0	19	86.4	22
Service	12	18.2	20	30.3	34	51.5	66

DEGREE OF SUPERVISORY RESPONSIBILITY OF PROGRAM STUDENTS

The majority of program students were employed in nonsupervisory positions, except those employed as accountants, coordinators, and data processing personnel. It was noted that men related they were in non-supervisory or supervisory-management positions more often than women, while women held the highest proportion of supervisory-nonmanagement positions. The probability that a student would hold a supervisory position appeared to increase as age increased. On the other hand, the person's level of education could not be directly related to his degree of responsibility for supervision. Table V indicates the degree of supervisory capacity of students in various types of work.

The greatest number of students (370 or 52 percent) had been employed in their current position between one and four years, 178 or 25 percent were employed five or more years, and the remaining 23 percent had been in their present position for less than a year. It was also noted that the size of

the firm and years in a position were related. That is, there was a tendency for the number of years in a given position to increase as the size of the firm increased.

TABLE V - DEGREE OF SUPERVISORY RESPONSIBILITY IN VARIOUS JOBS

	Supervisory Capacity						
	NONE		MANAGEMENT		NON-MANAGEMENT		TOTAL
PRINCIPAL TYPE OF WORK	#	%	#	%	#	%	#
Sales	43	53%	28	35%	10	12%	81
Secretarial	12	75	2	12	2	12	16
Clerical	31	63	11	22	6	12	48
Mechanic	88	85	5	5	11	10	104
Research	7	70	2	20	1	10	10
Accountant	1	11	6	67	2	22	9
Coordinator	9	30	14	47	7	23	30
Engineer	33	51	19	29	13	20	65
Production	18	58	4	13	9	29	31
Planning	22	67	8	24	3	9	33
Data Processing	6	43	6	43	2	14	14

The next phase of the study explored the influence of occupational characteristics upon the goals specified by students. Basically, this was a question of differences in goals by individuals with various occupational pursuits. There were not enough students who were unemployed or partially employed to provide meaningful findings. Table VI shows, however, that persons from firms with over 500 employees were the most likely to seek a Management Certificate, and students from the smallest firms indicated the least desire to earn a Management Certificate. Students employed in firms concerned with transportation and utilities were the most likely to seek a certificate, while students in manufacturing, construction, insurance, and wholesaling were the least likely to pursue a certificate as a goal.

TABLE VI - OCCUPATIONAL CHARACTERISTICS AND STUDENTS CERTIFICATE GOAL

OCCUPATIONAL CHARACTERISTICS	Working for a Management Certificate: YES #	YES %	NO #	NO %	UNDECIDED #	UNDECIDED %	Total #
Number of Employees in Local Firm							
10,000 plus	107	27.4%	23	12.8%	21	16.4%	151
5,000 - 10,000	66	16.9	16	18.9	17	13.3	99
1,000 - 5,000	83	21.2	33	18.4	26	20.3	142
500 - 1,000	35	9.0	22	12.3	14	10.9	71
100 - 500	38	9.7	33	18.4	27	21.1	98
Under 100	62	15.8	52	29.1	23	18.0	137
Total	391		179		128		698
Type of Firm Where Employed							
Financial	4	1.1%	6	4.2%	1	0.9%	11
Transportation	117	32.7	19	13.2	20	17.4	156
Electronics	77	21.5	24	16.7	30	26.1	131
Manufacturing	49	13.7	25	17.4	15	13.0	89
Construction	11	3.1	12	8.3	3	2.6	26
Utilities	36	10.0	9	6.2	8	7.0	53
Insurance	2	0.6	5	3.5	1	0.9	8
Retailing	19	5.3	14	9.7	15	13.0	48
Wholesaling	10	2.8	10	6.9	4	3.5	24
Service	33	9.2	20	13.9	18	15.6	71
Total	358		144		115		617
Years in Present Position							
Under 1 year	70	17.7%	55	29.7%	42	31.6%	167
1 to 4 years	209	52.8	91	49.2	69	51.9	369
5 or more years	117	29.5	39	21.1	22	16.5	178
Total	396		185		133		714

Individuals who were employed in a nonsupervisory capacity were just as likely to pursue a certificate as persons in a supervisory position. Students who had been in their present positions for less than a year tended to not pursue a certificate or were undecided about a certificate as a goal, but persons with five or more years in their current positions sought the certificate. Among those with between one and four years in their current jobs, the proportion seeking or not seeking the certificate was the same.

Students working for very large firms (employing 10,000 or more) indicated their course work was preparing them for future opportunities. Other than this, however, the person's reason for taking courses did not seem to be related to the size of the firm that employed him. Regarding the type of industry in which students were employed, those from utilities related that personal growth was the prime reason for class attendance, but there were no differences between the reasons given for enrollment by persons employed in other industries. For that matter, the student's principal type of work did not seem to influence his reason for enrollment in the course.

Students in nonsupervisory jobs related that the programs would help them prepare for future opportunities, and students in management-supervisory positions usually gave reasons such as, "personal growth" or "better preparation for my current job." Students who were in supervisory-nonmanagement positions considered future opportunities and better preparation for their current jobs as the prime reasons for taking courses. This same general picture was presented when the number of years in a position was considered. Individuals with five or more years in their present positions were seeking general self-improvement or enrichment; persons with one to four years of experience were concerned with future opportunities and better preparation for their current jobs; and persons with less than a year's experience were looking ahead to future opportunities.

The assessment by students of the general worth of the Management Programs was another area of concern to this study. Table VII shows that the majority of the students rating each course indicated a "good" rating.

TABLE VII - STUDENT ASSESSMENT OF MANAGEMENT COURSES

COURSE TITLE	GOOD #	GOOD %	AVERAGE #	AVERAGE %	POOR #	POOR %	TOTAL #
Managerial Accounting	10	53%	8	42%	1	5%	19
Report Writing	26	55	14	30	7	15	47
Management Communications	47	84	9	16	--	--	56
Dynamics of Group Communications	15	100	-	-	--	--	15
Seminar in Management Problems	1	100	-	-	--	--	1
Industrial Relations	34	60	19	33	4	7	57
Business & Industrial Economics	44	56	22	28	12	16	78
Production Control	31	60	18	35	3	5	52
Motion Study	20	77	6	23	--	--	26
Quality Control	5	45	5	45	1	10	11
Industrial Engineering Methods	67	61	37	34	5	5	109
Personnel Administration	19	33	25	44	13	23	57
Industrial Psychology	60	75	17	21	3	4	80
Office Management and Proecdures	16	73	5	23	1	6	22
Sales Development	3	43	3	43	1	14	7
Techniques of Supervision	166	77	41	19	8	4	215
Organization for Management	78	60	46	35	7	5	131
Introduction to Business Management	89	56	56	35	13	9	158
Data Processing for Managers	14	52	8	30	5	18	27
Sales Fundamentals	20	87	3	13	--	--	23
Merchandising	12	75	4	25	--	--	16
Advertising	21	78	4	15	2	7	27
Public Relations	17	47	15	42	4	11	36
Elementary Statistics	15	71	4	19	2	10	21
Marketing	17	85	3	15	--	--	20

Specific exceptions to the general rating of "good" were: Personnel Administration, Sales Development, and Public Relations. The "best" courses (70 percent with good ratings) accoring to the students were:

Dynamics of Group Communications	Marketing
Fundamentals of Salesmanship	Advertising
Management of Communications	Office Management
Techniques of Supervision	Merchandising
Industrial Psychology	Elementary Statistics

Courses that received the poorer ratings were: Personnel Administration, Data Processing for Managers, Business and Industrial Economics, and Report Writing. Meaningful findings could not be reported for the Seminar in Management Problems, Sales Development, and Quality Control due to the small number of students who rated these courses. An examination of Table VII also indicates that students generally placed the same value on both Management Programs.

On an overall basis, 253 students (34 percent) indicated that their classes had been a great deal of help to them, 375 students (50 percent) felt the courses had been of some help, and 44 students (6 percent) thought the courses had been of no help. There were 74 students (10 percent) who did not respond to this question. There were 198 students who declined to provide a basis for their assessments, while 85 thought they could not evaluate the course at this time. An additional 64 students indicated they had no opportunities to apply the course work or that growth opportunities in their respective companies were lacking. About 46 percent of the students could not or simply would not indicate why they had evaluated the courses as they did.

From a positive point of view, 176 students (24 percent) indicated the courses had helped to prepare them better for their jobs or for advancement. Another 132 students (18 percent) indicated the courses had helped them to acquire a broader base of knowledge, 58 students (8 percent) pointed out that they had attained better understanding of people, and 9 students (1 percent) based their assessments on comments about the "good" instructors. On the negative side, nine individuals felt the courses were inadequate in scope and depth, eight thought they provided nothing new, four students pointed to poor instruction, two felt there was too much repetition in the various classes, and one student thought that more time for classes was needed.

STUDENT PREFERENCE FOR CURRICULUM ADDITIONS

Another approach to evaluation of the program was through the question, "What courses would you like to have added to the curriculum?" The seventy-five comments in this area included:

21	Need additional communications courses
11	Need other specialized courses
8	Need more sections of present courses
5	Need courses in purchasing
4	Need more courses for middle management
4	Need advanced quality control
3	Need more small business courses
3	Need public administration course
2	Need advanced statistics
1	Planning, scheduling and budgeting
1	Need service oriented courses
1	Need additional engineering courses
1	Need advanced production control

It would appear that the possibility of additional communications courses should be explored.

On the basis of vocational characteristics it was found that students who were not employed seemed to find the program of significantly less value than students who were employed. Specifically, 35 percent of the students employed full time considered the program of great halp as compared to 13 percent of the unemployed students. In addition, students who came from firms with less than 500 employees expressed the opinion that the programs were of great value, while other students' comments were evenly divided between ratings of "great," "of some value," and "no value."

Generally, students from each type of industry gave the program an "average" rating. Students employed by utility firms and wholesalers made the most positive comments about the program, while students from finance firms and electronics were the most negative.

On the basis of the student's principal type of work, no real differences were noted in the ratings of the programs. Persons in supervisory-management positions were the most positive, and persons in nonsupervisory positions were the most negative in their ratings. The amount of time in a given position did not seem to influence the student's rating of the program.

STUDENT ASSESSMENT OF PROGRAMS BASED ON EDUCATIONAL GOALS

Another difference that could account for student ratings was their goals. It was found that students who considered the programs to be helpful were seeking a Management Certificate, and those who were not seeking a certificate were inclined to give the programs low ratings. Specifically, 65 percent of those who sought a certificate considered their courses of great help, but 50 percent who were not seeking a certificate indicated the courses were of no help to them.

There were no differences in the ratings provided by students who were seeking an Associate of Arts degree, Bachelor of Arts degree, or no degree at all. Those students who were taking courses as a means of achieving the goal of better preparation for their present positions considered their courses very helpful, but those who took the courses for enrichment or personal growth were the most likely to consider them of no value.

The assessments of each course were analyzed in the same fashion as the overall ratings. Generally, women tended to give the individual courses a higher rating than men, but there were no significant differences between the two groups, nor were any differences noted in the ratings between persons in the various age groups. Based on the student's educational level, it was found that those who had graduated from college indicated that Report Writing, Industrial Relations, Industrial Engineering Methods, Techniques of Supervision, and Organization for Management were not particularly helpful courses. Students who had attained an Associate of Arts degree level of education tended to find little value in Business and Industrial Economics and Techniques of Supervision. Students with some college training tended to held these courses in low regard: Production Control, Organization for Management,

Introduction to Business Management, Data Processing for Managers, and Public Relations. Students whose education had been limited to high school were inclined to state the opinion that Personnel Administration was not particularly helpful.

It was noted earlier in the report that persons working toward a Management Certificate made the most positive remarks about the total program. Reactions concerning specific courses, however, were varied. Those working toward a certificate devalued:

Business and Industrial Economics	Personnel Administration
Organization for Management	Production Control

According to those who were not working toward a certificate, the list of courses given a poor rating were:

Business and Industrial Economics	Advertising
Industrial Engineering Methods	Public Relations
Data Processing for Managers	Industrial Psychology

The only course requiring improvement according to those students who were undecided about attaining a certificate was Introduction to Business Management.

Another possible explanation of course ratings was the student's general goal in taking a course. Table VIII suggests that the student's goal can be related to his evaluation of a given course. For example, Introduction to Business Management is required for a certificate in both Management Programs, and students whose goal was preparation for future opportunities were inclined to rate this course "poor," but students with other goals gave it a "good" rating. It would appear that a student's occupational experience combined with his goal did influence assessment of individual courses.

TABLE VIII - GENERAL RATING OF EACH COURSE ACCORDING TO STUDENT'S GOALS

	Student Course Goal		
COURSE TITLE	Better Preparation for Current Job	Prepare for Future Opportunities	Personal Growth & Enrichment
Managerial Accounting	good	average	good
Report Writing	poor	average	average
Management Communications	good	average	good
Dynamics of Group Communications	good	good	good
Management Problems	no comment	no comment	no comment
Industrial Relations	average	poor	average
Business & Industrial Economics	poor	average	average
Production Control	average	good	average
Motion Study & Methods Analysis	average	good	good
Quality Control	no comment	good	no comment
Industrial Engineering Methods	good	good	poor
Personnel Administration	average	good	good
Industrial Psychology	average	good	poor
Office Management and Procedures	poor	good	good
Sales Development	average	average	no comment
Techniques of Supervision	average	average	poor
Organization for Management	good	poor	good
Intro. to Business Mgmt.	good	poor	good
Data Processing-Managers	good	poor	good
Salesmanship Fundamentals	good	average	good
Merchandising	good	good	no comment
Advertising	average	average	poor
Public Relations	poor	good	average
Elementary Statistics	poor	good	average
Marketing	good	average	no comment

The same method of analysis was used to consider the ratings of individual courses by students in various types of work. Table IX shows that there were not enough students in several types of work to provide a meaningful assessment of a number of courses; thus, a general rating was not indicated for them.

TABLE IX - RATING OF INDIVIDUAL COURSES BY STUDENTS IN VARIOUS TYPES OF WORK

	Sales	Secretarial-Clerical	Mechanic or Journeyman	Research	Accountant	Coordinator	Engineer	Production	Production Planner	Data Processing
Managerial Accounting	G*	-	-	A	-	-	-	-	-	-
Report Writing	A	-	-	G	G	-	G	G	G	-
Management Communications	G	G	G	-	G	A	A	-	A	-
Dynamics of Group Commun.	-	-	-	-	-	-	-	-	-	-
Management Problems Seminar	-	-	-	-	G	-	-	-	-	-
Industrial Relations	-	P	A	-	-	-	-	-	A	-
Business and Ind. Economics	A	A	G	G	P	P	A	A	-	-
Production Control	-	-	P	-	-	G	-	A	G	-
Motion Study & Methods Analysis	-	-	G	-	-	-	A	A	-	-
Quality Control	-	-	A	-	-	-	-	-	-	-
Industrial Engineering Methods	-	-	A	A	-	G	A	A	P	-
Personnel Administration	A	G	P	-	-	-	P	-	P	-
Industrial Psychology	A	P	G	-	G	G	P	G	-	-
Office Mgmt & Procedures	A	A	-	-	-	-	-	-	A	-
Sales Development	-	-	-	-	-	-	-	-	-	-
Techniques of Supervision	A	P	A	G	A	G	P	P	G	A
Organization for Management	G	P	A	G	A	G	G	A	G	G
Intro. to Business Management	P	A	G	G	G	A	P	P	P	P
Data Processing for Managers	P	-	-	-	-	-	-	-	A	-
Fundamentals of Salesmanship	-	-	-	-	-	-	-	-	-	-
Merchandising	A	-	-	-	-	-	-	-	-	-
Advertising	P	A	-	-	-	-	-	-	-	-
Public Relations	P	P	A	-	-	-	-	-	-	-
Elementary Statistics	G	-	-	-	-	-	P	-	-	-
Marketing	A	G	-	-	-	-	G	-	-	-

* G - Good; A - Average; P - Poor.

Courses considered "poor" and in need of improvement were:

Course Title	Occupation of Students
Industrial Relations	clerks
Business & Industrial Economics	accountants and coordinators
Production Control	trade journeymen
Industrial Engineering Methods	production planners
Personnel Administration	mechanics, engineers, and production planners
Industrial Psychology	clerks and engineers
Techniques of Supervision	clerks, engineers, and production personnel
Organization for Management	clerks
Intro. to Business Management	sales personnel, engineers, data processing and production personnel
Data Processing for Managers	sales personnel
Advertising	sales personnel
Public Relations	sales personnel and secretaries
Elementary Statistics	engineers

The amount of supervisory responsibility also influenced the student's rating of an individual course; for example, "poor" ratings were given the following courses by students who held supervisory positions: Report Writing, Industrial Engineering Methods, and Techniques of Supervision. Conversely, persons in nonsupervisory roles indicated "poor" ratings for: Production Control, Quality Control, Industrial Psychology, Office Management and Procedures, Organization for Management, Data Processing for Managers, and Advertising. These findings would suggest that persons who have had an opportunity to apply material from a course in the job situation usually indicated a "good" rating for that course. If a course was regarded "poor," it is probable that the student was not able to make immediate application of the material, or he simply was not in that position long enough to realize its application possibilities. Since this generalization applies to a number of courses, some attempt to provide course material in a more relevant manner would seem to be appropriate.

QUALITY OF INSTRUCTION

The final phase of this study sought to identify additional specifics in the instructional area that could lead to course improvements. For example, 302 students (41 percent) indicated the quality of instruction was excellent, 355 students (47 percent) considered it good, 33 students (12 percent) considered it fair to poor. The assessment of the quality of instruction was recorded as "good" by students in all types of work except by coordinators and production personnel, who tended to rate it "excellent." No other individual or occupational characteristics were found to be related to the student's assessment of the quality of instruction. In passing it was noted that there were only eighteen day students who responded to the question regarding the quality of instruction -- four said it was "excellent," ten said it was "good," and four said it was "fair to poor."

Table X illustrates that the better instructional methods were considered to be: lectures without visual aids, class discussions, outside speakers, case studies, and small group discussions. Generally, the quality of instruction, as perceived by the students, could not be related to any of the instructional methods employed. That is, the proportion of students who indicated that instruction was excellent and that class discussion was a helpful method of instruction was the same as the proportion who stated that the instruction was only fair to poor. Of the students who felt that the classes were a great help on their jobs, the better methods of instruction included role playing and student reports. Students who felt their classes had been of some help particularly enjoyed lectures with visual aids, student reports, and programmed learning; while students who stated the program had been of no help tended to prefer lectures and programmed learning.

TABLE X - STUDENT RATING OF INSTRUCTIONAL QUALITY AND THE MOST HELPFUL INSTRUCTIONAL METHOD

	Quality of Instruction					
	Excellent		Good		Fair-Poor	
"BEST" METHOD	#	%	#	%	#	%
Lecture and Visual Aids	46	4.0%	47	4.0%	3	3.0%
Lecture - No Aids	207	18.0	241	20.3	25	25.0
Class Discussion	218	19.0	227	19.2	19	19.0
Small Groups	117	10.2	119	10.0	10	10.0
Role Playing	48	4.2	37	3.1	2	2.0
Outside Speakers	123	10.7	129	10.9	10	10.0
Student Reports	30	2.6	30	2.5	2	2.0
Tapes	32	2.8	38	3.2	2	2.0
Projects	51	4.4	56	4.7	2	2.0
Programmed Learning	17	1.5	15	1.3	3	3.0
Programmed Learning with Lecture & Film	50	4.3	66	5.6	7	7.0
Case Studies	130	11.3	117	9.9	4	4.0
Company Visits	79	6.8	62	5.2	10	10.0
Total	1148		1184		99	

METHODS TO IMPROVE INSTRUCTION

The final question in this area of evaluation was, "What should be done to improve the quality of instruction?"

Most of the students (587) made no suggestions in this regard. Specific suggestions included:

Better instructors	55 students
Have smaller classes	27 "
Increase use of audio-visual aids	14 "
Make course more specific	14 "
Need a better text or use it more effectively	13 "
Use more outside speakers	10 "
Make more demands on the students	5 "
Use more case studies	4 "
More lectures	3 "
Extend class time	3 "
Add more classes	3 "
Improve facilities	1 "
Make courses less specific	1 "
More consistency between classes	1 student

In effect, improvements would appear to depend upon the ability of the program to attract qualified instructors, reduce class size, find or prepare instructional aids and use them in class, develop curricula that are directly and specifically related to the job, and bring the class into direct contact with the subject being studied through speakers, visits, and visual materials.

CONCLUSIONS

1. Over one half of all students enrolled in the Management Programs are seeking a Certificate of Completion. Ninety percent could be described as adults, according to their ages, while nearly two thirds of the students are pursuing Associate in Arts or Baccalaureat degrees. Only twenty-six students were concurrently enrolled in day classes. It may also be said that the programs are not attracting persons who do not have some college education. At the same time, the probability of seeking a Certificate will increase as a person's level of education decreases or as his age increases.

2. The programs are particularly attractive to persons employed by large firms (1000 or more employees), dealing in transportation and electronics. Very few students come from industries such as insurance, finance, wholesaling, or construction. It may also be said that trade journeymen, sales and engineering personnel are well represented, while very few accountants, researchers, data processing personnel, or secretarial positions are represented. The majority of students in the programs hold nonsupervisory positions and have held their current positions for approximately four years.

   Persons who seek a certificate tend to come from large firms rather than small companies; they are probably not in supervisory positions but have been in the present positions for a number of years. Many of the students seeking a certificate see it as a ticket to receiving additional responsibilities, and those who do not want the certificate are interested in improving their skills for their present jobs.

3. Nearly every student feels the Management Program is of some help in his present position. The findings also indicate that a number of courses are generally rated "good" (Management Communications,

Dynamics of Group Communications, Motion Study and Methods of Analysis, Industrial Psychology, Techniques of Supervision, Fundamentals of Salesmanship, Merchandising, Advertising, and Marketing).

The courses in Personnel Administration, Data Processing for Managers, Business and Industrial Economics, Report Writing, Sales Development, and Public Relations, however, are not held in high regard. There is no general agreement among students on how the programs might be improved. Attention to increasing the scope and depth of courses or improving instruction would appear to be the most productive areas for discussion; while additional courses in communication may be warranted.

4. Students who hold the programs in low regard can be described, generally, as under 21 years of age and unemployed. None of the other occupational or individual characteristics studied will differentiate persons who think the program is good from those who indicate it is poor. On the other hand, students working toward a certificate or who are seeking preparation for future opportunities are the most likely to hold courses in high regard. The question of value can be assessed more effectively by considering individual courses and the type of student who considers the program of limited value. Thus, the student's level of education, his goals, the principal type of work in which he is employed, and his amount of supervisory responsibility will clearly identify the courses that are and are not preferred. Specifically, Business and Industrial Economics is not well regarded by persons with approximately two years of college, or those working toward a Management Certificate, or who are seeking better preparation for their current jobs, or performing a coordinating function, or by those who hold supervisory positions. Such a finding is nearly counter to the general findings and would suggest that the course, at present, does not meet student needs. Another course, Data Processing for Managers, could be made more relevant by gearing the approach to

students with mid-college abilities or by providing additional practical applications not currently available to nonsupervisory persons. Basically, the findings allow the assessment of each course in this fashion if such comparisons should be desired.

5. The quality of instruction in the Management Programs can be described as "good" to "excellent." Most of the improvements would appear to be of a curricular nature. However, the most popular instructional methods are lecture, class discussion, outside speakers, case studies, and small group discussions.

It could be pointed out that although many adults want and prefer methods that provoke and stimulate thought, there are still a good many who want to be told how and what is to be done. Those who regarded the program most highly certainly prefer the methods which allow a maximum of student involvement.

6. The findings would seem to allow individuals with considerable experience and training in management to draw additional inferences leading to improvement of the programs. Presentation of such recommendations, however, is considered the prerogative of the Advisory Committee since this is one of their primary functions.

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