

1001-27-10 306

1001-27-10 306



## ABSTRACT

# EDUCATIONAL PROGRAMS IN BUSINESS AND INDUSTRY AND IMPLICATIONS FOR RECEIVING CREDIT TOWARD THE EXTERNAL DEGREE

By

Arthur W. Anderson

Higher education in America appears destined for a new era of challenge. This era is being initiated by a generation that questions heretofore sacred institutions and practices, as well as the very fabric of the American society. From an educational perspective, matters are compounded by a scarcity of financial resources, and an ultimate decline in enrollments in institutions of higher education. The new clientele is becoming increasingly diverse and mobile. As such, a new educational pattern is emerging. The percentage of students to enter college immediately after high school graduation is expected to decrease. Increasingly, the trend is to spend several years in work and/or travel prior to college enrollment. The pattern of college attendance is expected to be discontinuous, with the typical college student exiting from and reentering the educational mainstream at varying points in time. The result of such a college attendance pattern will be a more mature constituency, frequently extending the undergraduate education into middle age. An accompanying change will be an increasingly sophisticated student possessing a diversity of learning experiences. Life long education will emerge as the dominant educational concept.

In an attempt to keep abreast of current and future demands, the higher education enterprise is considering other than traditional approaches. One such innovation is the external degree. Numerous external degree programs are currently in operation in America, and others are being planned. Some external degree programs are patterned after the British Open University. The Great Britain Open University was established in January, 1971. Its objective is to offer quality degree programs to a clientele for larger and more diverse than any traditional university would accommodate. This would be accomplished through a unique blend of innovative techniques including television, radio, correspondence study, independent study, local study centers, etc. There are no formal entrance requirements. Anyone 21 years or older who lives in Great Britain may enroll.

The external degree represents a potentially viable alternative for American higher education. As with most innovations, however, it is receiving both scrutiny and scorn. External degree programs generally provide for the possibility of awarding academic credit for developmental experiences. Decisions as to the applicability of awarding credit for life experiences are currently being made by objective and subjective procedures. Academicians are especially critical of these subjective processes for they follow no set procedures and vary with institution and individuals concerned. Theoretically, a student's life experiences must contribute to the attainment of some broader educational objective



in order that such experiences might be considered for academic credit. In fact, this relationship is frequently non-existent. If the external degree is to develop as a viable educational alternative, knowledge must be gained as to the kinds of life experiences that directly relate to college objectives, and valid procedures established for determining the degree of applicability. Emphasis must be placed upon the student's ability to successfully demonstrate appropriate learning.

Many adults acquire educational experiences in work related activities. In that business and industry is the largest employer of the American adult, it was decided that for purposes mentioned above, a study should be conducted of "Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree." It is well known that industry has long been engaged in educationally related activities. Some major corporations have implemented educational offerings at every organizational level. The Chrysler Corporation of Detroit presently offers to qualified employees a management program that will entitle the successful employee-student to receive two years of credit toward a baccalaureate program at a neighboring college.

This study explored the hypothesis that there presently exist in business and industry educational programs for employees that provide academic experiences equivalent to that offered in the baccalaureate setting. Major corporations employing 5,000 or more employees were asked to participate in the study. As numerous

responses indicated, all companies of this size do not have on-going educational offerings. Eleven Michigan corporations and four out-state consulting firms participated through the conclusion of the study. Participants responded to a two-part questionnaire and submitted 31 courses for evaluation as to the degree of college level equivalency. Appropriate Michigan State University faculty members evaluated these materials.

The findings of the study indicate that many of the educational experiences gained via business and industry overlap present university offerings. Much of such overlap was judged to exist at a level sufficient for the consideration of awarding academic credit to one able to successfully demonstrate learning so acquired. Departmental examinations were favored by faculty for such decisions. These findings hold some interesting implications for the future delivery of higher education services in America.

EDUCATIONAL PROGRAMS IN BUSINESS AND INDUSTRY  
AND IMPLICATIONS FOR RECEIVING CREDIT  
TOWARD THE EXTERNAL DEGREE

By

Arthur W. Anderson

A THESIS

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

DOCTOR OF PHILOSOPHY

Department of Higher Education

G 34250

Dedicated to:  
Mother and Toi

## ACKNOWLEDGMENTS

The successful completion of this study of "Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree" was contingent upon the excellent cooperation given by members of the university and industrial communities. Foremost is my gratitude to Dr. Paul L. Dressel, my major professor, who has demonstrated an unequivocal support for my professional and intellectual development. My indebtedness is also extended to the following persons who composed my Committee and generously gave of their time and expertise: Dr. Van Johnson, Chairman of Programs in Higher Education; Dr. Richard Featherstone, Professor of Higher Education; Dr. Louis Stamatakis, Professor of Higher Education; and Dr. Daniel Kruger, Professor of Labor and Industrial Relations. I am of course grateful to the Michigan State University faculty members and the companies that participated in this study.

My personal appreciation is extended to my mother, Ms. Angenette Anderson, who is primarily responsible for that which I am today, my daughter Toi, who is my inspiration, Ms. Snowrene Duncan, who toiled laboriously in typing from my less than perfect handwriting, and Ms. Ruby Helton, who assisted in the analysis of data. I am also grateful to numerous persons who gave of their time in discussion of matters related to the subject for the dissertation.

## TABLE OF CONTENTS

Chapter		Page
1.	AN OVERVIEW OF THE CURRENT SITUATION AND A JUSTIFICATION FOR THE STUDY .....	1
	Introduction .....	1
	Current Pressures in Higher Education .....	3
	Inequality of Educational Opportunity .....	3
	Admissions Policies .....	6
	Academic Relevancy .....	7
	Growth and Finance .....	11
	The External Degree .....	15
	Benefits of External Degree Programs .....	24
	Developmental Experiences .....	26
	Summary .....	30
II.	DESCRIPTION OF THE STUDY .....	33
	The Problem for the Study .....	33
	Hypothesis .....	35
	Organization and Development of Study .....	35
	Method of Evaluation .....	52
	Summary .....	55
III.	REPORT OF FINDINGS .....	57
	Indices for Data Collection .....	57
	Presentation of Findings .....	59
	Class Components .....	65
	Instructional Materials .....	67
	Standards .....	68
	Formal Evaluation .....	69
	Characteristics of Instructor .....	72
	Benefits to Employees .....	74
	Benefits to Company .....	75
	Summary .....	78
IV.	FACULTY PROCEDURES AND CONCLUSIONS .....	81
	Summary .....	91
V.	CONCLUSIONS AND RECOMMENDATIONS .....	93
	Cautions .....	96
	Recommendations .....	98

## LIST OF TABLES

Table	Page
I. Companies Asked to Participate in Study .....	39
II. Companies Agreeing to Participate in Study ...	41
III. Companies not Participating in Study .....	43
IV. Withdrawals .....	46
V. Additional Participants .....	48
VI. Companies Participating Throughout the Study..	49
VII. Courses by Company and Complexity .....	63
VIII. Characteristics of Instructor .....	73
IX. Opportunity for Advancement .....	76
X. Benefits to the Company .....	77
XI. Course Evaluations .....	86
XXI. Appropriate Procedure for Determining Applicability of Awarding Credit .....	88

Chapter	Page
BIBLIOGRAPHY .....	103
APPENDIX A .....	106
APPENDIX B .....	112
APPENDIX C .....	122
APPENDIX D .....	130



## LIST OF FIGURES

Figure		Page
1	Nature of Program .....	61
2	Utilization of Class Components .....	63

CHAPTER I  
AN OVERVIEW OF THE CURRENT SITUATION  
AND A JUSTIFICATION FOR THE STUDY

INTRODUCTION

The demand for higher education in America is expected to increase in the future to a possible enrollment between 12,500,000 and 13,500,000 persons by 1980.<sup>1</sup> Such a demand naturally entails problems of space and finance. In an effort to meet its responsibilities to society, higher education in America is seeking alternatives to the traditional college education. One such alternative is the external degree. Numerous external degree programs are presently in operation in the United States and many more<sup>2</sup> appear on the horizon.

External degree programs seek to provide a quality education while minimizing the time a student spends in the traditional settings through an imaginative blend of educational techniques such as television, radio, correspondence instruction, seminars, independent study, and local study centers. The potential for serving greater numbers of students through such techniques is apparent.

---

<sup>1</sup>  
The Carnegie Commission on Higher Education, New Students and New Places, October, 1971, McGraw-Hill Book Company, New Jersey, pp. 1-12.

<sup>2</sup>  
Valley, John R., Increasing the Options, Office of New Degree Programs, Educational Testing Service, 1972, p. 2.

Generally incorporated into external degree programs is the view that many adults, prior to college entrance, have participated in educational or developmental experiences of college level equivalency such as work related activities, travel, and various seminars and training programs. If institutions of higher education determine that a person's developmental experiences have contributed to his proposed course of study, there exists the possibility that the student will be awarded credit toward the external degree. Many individuals acquire developmental experiences in relation to their employment. It is well known that Michigan business and industry makes significant contributions to the educational development of its employees. This takes place through the offering of training programs, basic education programs, opportunities for employees to qualify for high school diplomas through G.E.D., marketing institutes, professional seminars, and the like. The present study is designed to obtain information concerning educational and training programs offered by business and industry, and explore the implications for awarding college credit to employees who participate in such programs. However, it is desirable to review the current pressures upon American higher education that facilitated the development of the external degree concept, thereby providing the scene in which it is possible to consider the awarding of credit for learning acquired under the auspices of institutions and organizations not formally established or recognized for educational purposes.

## Current Pressures in Higher Education

The current status and future of higher education in America is ambiguous. A basic cause of this situation has been the inability of higher education to adapt to the changing needs of society. As a result, it has been the target of much criticism, and is now desperately attempting to make needed adjustments to prevent further deterioration of its status. Implicitly, this state of affairs precipitated from a cancerous condition that is internal in nature. Let us explore some of the symptoms that characterize the illness of American higher education.

## Inequality of Educational Opportunity

Higher education in America began in 1636 when the Massachusetts Puritans chartered Harvard College. Initially, only the select few could partake of higher education, and the institutions were highly responsive to the ideals of their affluent controlling bodies. Enrollments increased gradually until the 1940's. However, the post World War II period was characterized by an increased demand for higher education services. The 1940's represented a traumatic experience for the higher education enterprise. Although the philosophy and objectives of higher education were much discussed prior to World War II, the return of large numbers of veterans and an accompanying demand for higher education brought this issue to bear. The conflict between serving an elite clientele and the general public was suddenly out in the open.

The fundamental issue that continues to face all of higher education is ambivalence as to its reason for being. Those directing and controlling institutions of higher education and lay persons maintain a dichotomous approach to this issue. Some maintain that the primary responsibility of the institution is to the personal development of the individual although the institution exists as an agent of society. Proponents of this point of view would contend that higher education is a universal privilege, although some investment on the part of the individual might be required. Conversely, others believe that the central function of higher education is the perpetuation of society, and that the welfare of the individual is secondary. Some argue that the individual receives the principal benefits and should therefore pay the entire cost of his education by borrowing money if necessary. Naturally, objectives for higher education related to these philosophies reflect the inherent paradox. Although higher education enrollments have continued to grow in the post World War II period, the failure to resolve the issue of what should be the function of the higher education enterprise has served to preserve its discriminatory nature.

In its role as an organ of American society, higher education has naturally reflected its origins. The rewards of the American economy are primarily directed at its middle and upper classes. Therefore, it is logical that the higher education enterprise traditionally serviced this same constituency.

The basis of the American society is its economy and not the welfare of man. Thus, economic status has served as the prime determinant of inequitable opportunity in higher education. Of course, the same holds true for pre-college education. In our American system, youth from wealthy families have significantly greater chances of attending college than do youth from poorer families. A family with income over \$15,000 and with one or more college age children is five times as likely to include a full-time college student as a similar family with an income under \$3,000.<sup>3</sup> Ninety-five percent of higher-ability youth from high income homes enter college within five years of high school completion, but only 50% of equally high ability - but low income youth enter college.<sup>4</sup> The theme of racial discrimination would be inherent in these conditions in that a large percentage of minority families belong to the lower socio-economic strata. There exists in the American society a growing recognition that it can no longer tolerate present inequities in educational opportunity. As such, alternative methods of servicing those groups not traditionally or adequately serviced by higher education are being explored.

---

3

Botton, Roger E., The Economics and Public Financing of Higher Education: An Overview, The Economics and Financing of Higher Education in the United States, (Washington, D. C.: U. S. Government Printing Office, 1969), pp. 62-63.

4

Berls, Robert H., Higher Education Opportunity and Achievement in the United States, The Economics and Financing of Higher Education in the United States, (Washington, D. C.: U. S. Government Printing Office, 1969), p. 150.

## Admissions Policies

Admissions policies are intricately related to the issue of educational opportunity. As indicated in prior discussion, admissions to institutions of higher education are directly related to economic status. The process is inherently repetitious in that recipients of a college education gain added benefits of considerable economic proportions. "The admission decisions taken collectively reward the "haves" and exclude the "have nots."<sup>5</sup>

Institutional philosophy is highly reflected in criteria utilized for the selection of students. The selectivity of the student body and admissions criteria are directly related. In general, institutions of higher education utilize criteria that effectively limit admissibility to those already advantaged by our society. These criteria include high school achievement, quality of school attended, influential recommendations, test scores, and financial assistance.

A screening instrument that has been widely utilized to deny access to higher education to minorities and the economically disadvantaged is the Scholastic Aptitude Test. The score that a student attains on this measuring device is frequently a major

5

Lane, Hugh W., Admission Procedures in Transition: Some Inter-Relations, IRCD Bulletin, Horace Mann-Lincoln Institute Teachers College, Columbia University, New York, vol. V, no. 5, Winter, 1969, p. 3.

criteria in determining his college admissibility. It is now widely claimed in educational circles that the S A T and similar instruments are negatively biased predictors of minority group students' potential for success in college.<sup>6</sup> Of significance is the fact that institutions throughout the nation are now being pressured to design educational programs that provide an adequate degree of flexibility for the admission to and/or completion of a course of study to include all students with the ability to succeed. Of course, such procedures should not sacrifice academic standards, although it is doubtful that any faculty knows what the standards are or have been.

#### Academic Relevancy

Cries for academic relevancy can be heard throughout American's college and university system. The student vanguard is stating that the college curriculum is not pertinent to personal and social development in a contemporary milieu. A historical perspective of the origin of curriculum in America tends to support student criticism.

"The Latin root for the word 'curriculum' means 'race course' and the virtue of a race course is that it is fixed and standard.

6

Mendenhall, Thomas C., Admissions Policy: Implications and Consequences, IRCD Bulletin, Horace Mann-Lincoln Institute Teachers College, Columbia University, New York, vol. V, no. 5, Winter, 1969, pp. 5-6.



For centuries the European curriculums were fixed, bounded by the study of the trivium and quadrivium.<sup>7</sup>

Interests in curriculum and its composition go back to the time of the Sophists and perhaps even earlier. American development in higher education is naturally rooted in European custom and tradition. Consequently, the educational curriculum was conceived as a formal course of study, within specific disciplines, relatively fixed over periods of time. By 1940, curriculum making was a recognized field of specialization in American education. However, the relatively fixed nature of curricula has prevented its keeping abreast of social change.<sup>8</sup>

Closely akin to the curriculum issue are massive attacks on professional accountability and tenure. Students correctly assert that their professors are frequently unavailable for consultation. The reasons for this situation are generally claimed to be a lack of genuine concern for students, and extensive outside consultancies by professors. However, the true culprit is frequently identified as teacher tenure. It is claimed that tenure permits a professor to become lax in fulfilling his responsibilities. Student attacks on the issues of professor availability and tenure are rapidly

7

Decker, Walker F., and Kirst, Michael W., An Analysis of Curriculum Policy-Making, Review of Educational Research, vol. 43, no. 5, December, 1971, p. 482.

8

Cremin, Lawrence A., Curriculum-Making in the United States, Teachers College Record, vol. 73, no. 2, December, 1971, p. 207.

gaining support in the general society. This is evidenced through recent activities on the part of many state legislatures regarding minimum contact hours and teacher tenure in higher education.

It is safe to assume that the next decade will witness a revision of the college curriculum to more closely align it with the educational needs of a contemporary milieu. This era will also witness a student body that is extremely diverse, highly mobile, and not willing to accept tradition in place of education. New policies concerning teacher accountability and tenure will also  
9  
emerge.

#### Enrollment

Higher education in America has experienced fantastic growth in its enrollments. For more than three centuries higher education enrollments have experienced steady increases at a rate faster than the expansion of American society, generally. According to the Carnegie Commission attendance rates in higher education expanded from an inclusion of approximately 2% of the college age population in 1870 to about 35% in 1970. The Commission states that "over the past century, in particular, enrollments in higher education have doubled regularly every 14 to 15 years, but never  
10  
again."

---

9

Lee, Eugene C., and Bowen, Frank M., The Carnegie Commission on Higher Education, McGraw-Hill Book Company, 1971, pp. 449-451.

10

The Carnegie Commission on Higher Education, New Students and New Places, McGraw-Hill Book Company, New Jersey, 1971, pp. 1-4.

Enrollments in higher education grew consistently but gradually until the end of World War II. At that time, the returning veterans demanded admittance into the higher education mainstream, and enrollments experienced a rapid increase. The end of the Korean conflict brought a second period of rapid growth which lasted throughout the remainder of the 1950's and the decade of the 1960's.

American higher education in the 1960's was characterized by explosive growth. Enrollment during this decade grew from approximately 3.8 million in 1960 to 8.5 million in 1970. This numerical increase of 4.7 million is by far the largest growth in<sup>11</sup> the history of higher education in this country.

Enrollments in higher education are expected to experience continuous growth until the year 1980. However, this growth may never again be as phenomenal as that witnessed in the 60's. Expected enrollment growth for the 1970-1980 decade is an increase of one-half. This increase will bring total enrollments to between<sup>12</sup> 12,500,000 to 13,500,000 students. The 1980-1990 decade is not expected to witness additional growth. As a matter of fact, total enrollments are expected to drop slightly to a figure of 12,300,000 to 13,300,000 students. This anticipated stagnation is primarily

<sup>11</sup>  
Ibid, p. 12.

<sup>12</sup>  
This upper limit will be contingent upon new uncertainties such as financial stringency, labor market conditions, the cultural revolution, birthrate, loosening of educational structures, etc.

attributed to a decline in the birth rate. It is expected that the percentage of the college age population in college at any point in time to level off to 50% in the year 2000. The decade of 1990-2000 should evidence an increase in college enrollments to between 16,000,000 and 17,400,000 students.<sup>13</sup> This is an increase of approximately one-third. The validity of the enrollment projections here discussed is jeopardized by a current decline in college attendance. Nevertheless, the future represents a tremendous challenge to the planning and delivery of higher education services in America.

### Growth and Finance

It is apparent through prior discussion that "higher education in the United States can look forward to admitting and attempting to educate very large numbers of students, embracing a wide range of competence, preparation, and class origins, and requiring from governments and private sources very substantial amounts of financial aid and respectful understanding."<sup>14</sup> This situation is complicated by financial stringencies at every level. To date, the states provide the basic support for our colleges and universities. However, higher education must compete for funding at the state and local levels with rapidly rising expenditures for

13

The Carnegie Commission on Higher Education, New Students And New Places, October, 1971, McGraw-Hill Book Company, New Jersey, pp. 1-12.

14

Ward, F. Champion, University Initiative in Response to Change, Niblett, W. R., Editor, Higher Education: Demand and Response, Jossey-Bass, Inc., 1970, p. 160.

welfare, elementary and secondary education, and other public services. Matters are further complicated by the fact that costs are increasing at a rate faster than sources of income. "Federal grants - notably the National Science Foundation - are being stretched out, and private giving and increased tuition charges<sup>15</sup> are unable to fill the gaps." Total higher education operating expenditures for the year 1967-68 was 17.2 billion dollars. About one-third of the money came from the states with lesser amounts derived from national municipal and school-districts sources. Student fees and voluntary support made up most of the rest. Tuition costs, however, have risen to a point at which additional increases will lean towards "counterproductivity." For legal residents, the average annual tuition rate is approximately \$360 in public and \$1,400 in private institutions. Capital costs for higher education is around three billion dollars per year, some of<sup>16</sup> which is available from federal grants and loans.

Between 1970 and 1974 50% to 70% of the age group is expected to be enrolled in post-secondary institutions. This percentage represents an increment of one to two and a quarter million new students. "In order to attain the lower fringe by 1970, a hundred new colleges of 10,000 students each will be required to open each

15

McHenry, Dean E., Institutions of Higher Education in the U. S. A.: Some Recent Developments, Niblett, W. R., Editor, Higher Education: Demand and Response, Jossey-Bass, Inc., 1970, p. 128.

16

Ibid.

year, and to attain the higher figure of 70% enrollment by 1974,  
the number of new colleges would rise to 200 per year."<sup>17</sup> Some  
235,000 new college teachers would be needed to staff the expanded  
system.<sup>18</sup> It is anticipated that if equality of opportunity for  
higher education is to be broadly extended while maintaining  
quality, expenditures for higher education in 1976-77 must increase  
to 41 billion. This amount would require an increase in federal  
expenditures from 3.5 billion in 1967-68 to 13.0 billion in 1976-77.<sup>19</sup>  
Implications for the seriousness of the financial plight of higher  
education in America is evidenced in the statements of Jencks and  
Riesman who assert, "since 1950 the expenditures of colleges/student  
have risen faster than per capita gross national product; if we  
extrapolate current trends sufficiently far into the future, the  
entire gross national product would be devoted to higher education."<sup>20</sup>

---

17

Ward, F. Champion, University Initiative in Response to Change, Niblett, W. R., Editor, Higher Education: Demand and Response, Jossey-Bass, Inc., 1970, p. 160.

18

Ibid.

19

The Carnegie Commission on Higher Education, 1968, 1970, Sewell, William H., Inequality of Opportunity for Higher Education, vol. 36, October, p. 805.

20

Ward, F. Champion, University Initiative in Response to Change, Niblett, W. R., Higher Education: Demand and Response, Jossey-Bass, Inc., 1970, p. 160.

The areas least adequately serviced by higher education are the metropolitan areas, especially those with a population of over 500,000 persons. In the opinion of the Carnegie Commission there should exist a community college within commuting distance of 95% of all Americans, and that additional campuses should first be built to meet the needs of metropolitan areas. As such, the Commission believes that by 1980 there should be built 175-235 new community college campuses, and 80-105 new comprehensive campuses. It does not feel that additional research universities granting the Ph.D. are needed in the foreseeable future.

In addition to increased facilities and faculty, higher education will have to utilize innovative procedures in order to meet the educational needs of future constituencies. It is recognizable that the college clientele is changing in terms of its patterns of educational pursuits. A movement is expected to continue away from immediate entrance into an institution of higher education upon graduation from high school. A more free flowing pattern is anticipated that might extend the higher education experience into the middle age years of a person's life and beyond. As such, the typical student will not be fixed geographically, and will acquire a diversity of educational and work experiences. In order to meet the needs of this type of constituency, institutions of higher education must adopt innovative educational techniques such as flexible admissions criteria, consortium arrangements, flexible degree

structures, utilization of media, independent study, correspondence study, regional seminars, etc. If one takes a national perspective of higher education he will find many of these innovative procedures presently in operation and evidence of a growing trend in such developments. An innovative technique that is rapidly gaining acclaim is the Open University or External Degree Program. <sup>22</sup> Many educators throughout the nation perceive external degree programs as representing a viable alternative to some of the complexities currently facing the planning and delivery of higher education services in America. In fact, such a flexible approach to a degree is entirely justifiable whether overall demand increases or not.

#### The External Degree

American higher education is presently considering non-traditional approaches to obtaining a college education. This is evidenced by the mushrooming of programs in the United States to provide a college education external to the university campus, although many programs of this nature require students to spend brief periods of time on the campus or at a central location. These programs are generally offered under the designation of the external degree, or the open university concept. State university systems are taking an active part in the external degree movement. California, New York, New Jersey, Minnesota, Florida, Texas, and



Oklahoma are among the state systems offering such programs. Massachusetts has a program projected for 1973 to be known as the University of Commonwealth. Many American colleges and universities are also making the external thrust on an independent basis. These include Syracuse University in New York, Chicago State College, Goddard College in Vermont, Central Michigan University, Worcester Polytechnic Institute in Massachusetts, New College in Sarasota, Coe College in Cedar Rapids, Iowa, etc. The United States Navy is also involved in activities of this nature.

The commonly held notions of the college experience are somewhat inconsistent with the innovative philosophies of these external degree programs. External degree programs assume that: (1) the acquiring of a college education is not contingent upon experiences in a particular campus setting, nor upon a set period of time for such experiences, but upon the intellectual development of the student; and (2) the student is a responsible individual, capable of assuming a great deal of the initiative in designing his college program and fulfilling designated responsibilities, without residence on a formal campus for fixed periods of time. The educational experiences are to be a positive effort to acquire rather than passive acquiescence of genuine intellectual competence. This end result would provide the criteria for the awarding of degrees, and not the completion of successive years of residency.

There exist six major models of external degree programs. One such model is known as the administrative-facilitation model. It represents the most common model of external degree programs, and shares many characteristics of traditional degree programs. The distinguishing factor is that the degree is earned outside the central structure of the university. In the administrative-facilitation model "a degree-granting and instructional institution or agency establishes an organization and/or facilities to serve the needs of a different clientele, yet it holds its customary degree pattern."<sup>24</sup> The establishment of evening school or of an evening college is a common aspect of this model.

The next model to be considered is the modes-of-learning, model. In this model "a degree-granting and instructional institution or agency establishes a new degree pattern of learning and teaching that seeks to adjust to the capacities, circumstances, and interests of a different clientele from that which it customarily serves."<sup>25</sup> The popular British Open University and the University Without Walls follow the modes-of-learning model.

In the examination model "an institution or agency which need not itself offer instruction leading to an external degree awards credits and degrees on the basis of student performance as evidenced by examinations."<sup>26</sup> Such a program is presently being offered by

<sup>24</sup>

Gould, Samuel B., and Cross, K. Patricia, Explorations in Non-Traditional Study, Jossey-Bass, Inc., Publishers, 1972, p. 99.

<sup>25</sup>

Ibid, p. 100.

<sup>26</sup>

Ibid, pp. 109-110.

the State of New York. The New York Regents Degree is awarded solely on the basis of examination. Both oral and written examinations are utilized.

The fourth model to be considered is known as the validation model. In such a model "an institution or agency evaluates the student's total learning experiences from whatever means. The institution evaluates this total learning experience in terms of its conception of a degree and indicates any additional requirements needed. When they have been met, it awards the degree. The institution authorized to award a degree is presumed to have a clear set of degree requirements and a willingness to permit completion of its requirements by a variety of means."<sup>27</sup>

In the credit model of an external degree, "an institution or agency that does not itself offer instruction awards credits and degrees for which it sets standards and vouches for the quality of student programming."<sup>28</sup> The Commission on Accreditation of Service Experience of the American Council on Education performs some functions of this model. The Commission makes recommendations for the awarding of college credit for instruction received in the military.

The final external degree model is the complex-systems model. This model is followed when a degree-granting institution or agency reshapes its pattern of services in various ways, sometimes by combining various simpler models of external degree programs

<sup>27</sup>

Ibid, p. 113.

<sup>28</sup>

Ibid, p. 117.

to meet the needs of a different clientele. This model is considered as a system in that it combines various external degree models. An example of the complex-systems model is found in the  
 29  
 Empire State College Program.

A number of external degree programs in America are patterned after the Great Britain Open University. The Open University was established in January, 1971, in the town of Milton Keynes near London. Its objective is to offer degree courses of equal quality to that at existing universities to a student body far larger and more diverse than any traditional university would accommodate. An imaginative use of new teaching concepts is demanded. Inclusive is a unique blend of television, radio, correspondence instruction  
 30  
 and local study centers. The Open University emphasizes the mutual planning of a student's academic program by the student and professional staff. There are no formal entrance requirements. Anyone 21 years or older who lives in Great Britain may enroll.

Two external degree programs went into operation in New York in the fall of 1971: Empire State College of the State University of New York and the University Without Walls sponsored by the Union for Experimenting Colleges and Universities. The latter program is nation-wide, including large and small, and public and private institutions.

29

Ibid, p. 119.

30

Eurich, Nell, and Schwenkmeyer, Barry, Great Britain's Open University: First Chance, or Last Chance?, Academy for Educational Development, Inc., August, 1971.

The Empire State College offered courses in anthropology, economics, English, fine arts, geography, history, mathematics, philosophy, and sociology in its first year of operation. Empire State's library and laboratory facilities as well as its course offerings are available to students attending the other 70 campuses, especially when it is necessary to utilize facilities not available at Empire State. Students may also transfer to the traditional campus to complete their final two years of college if they so desire. The age of students at Empire State ranges from 16 to 60 years.

The unique and rich backgrounds of students enrolling in external degree programs is evidenced by participants in the Union for Experimenting Colleges and Universities. Here, students who range in age from 16 to 71 include:

"several 16 year olds who have not completed high school,  
a 38 year old housewife who is an amputee and the mother of 3 sons and who hopes to teach high school English,  
a 50 year old oil company executive who plans a new career teaching music,  
a 19 year old who has had 2 books accepted for publication and will do independent study and writing in children's literature,

a 45 year old who started his college career in  
 1945 but never received a degree."<sup>31</sup>

Institutions participating in the University Without Walls program of the Union for Experimenting Colleges and Universities include the Universities of Massachusetts, Minnesota, and South Carolina, and Antioch, Bard, Friends World, Goddard, Loretto Heights, Morgan State, New, Roger Williams, Skidmore, Staten Island Community, Stephens, and Westminster Colleges, and Chicago State, Howard, New York, Northeastern Illinois State, and Shaw Universities.

The external degree program of the State of California was launched as a part of a series of proposals for reform made by Chancellor Glenn S. Dumke. Chico State and San Francisco State Colleges have pioneered the first efforts in off-campus learning. Residents in the northern California towns of Redding and Susanville may earn bachelor degrees at Chico State without attending classes at the college. The first external degree program of Chico State is in public administration. Future offerings will include American studies, business administration, child development, social science, and social welfare. "At San Francisco, 280 entering freshmen eliminated a year of study by passing five examinations given under the College-Level Examination

---

31

Semas, Philip W., Open University Programs Gain Favor in the U. S., The Chronicle of Higher Education, vol. VI, no. 10, November 29, 1971.

Program (CLEP) of the College Entrance Examination Board. Another 491 students received some college credit for passing four or fewer of the tests."<sup>32</sup>

The liberal studies program of Syracuse University is based upon a more formal four year curriculum. This non-resident program began in 1966 and in 1971 had 120 students. Students are required to spend 24 days on campus each year. A second program in business administration is now in operation at the college. It is the belief at Syracuse University that a limited amount of time on campus is essential to the student's educational development. Students at Syracuse attend summer session on campus to receive a short introduction to each of the four courses they will pursue during the year. They also receive reading and assignment lists. One project or assignment is typically submitted to the student's major professor each month.<sup>33</sup>

The United States Navy utilizes the external degree concept in its Afloat College. Under the navy program, crewman can earn two years of college credit at one of five designated colleges. Students must successfully complete a comprehensive examination that is primarily based upon extensive reading, filmed courses,

---

32

Ibid.

33

Ehrich, Thomas Lindley, Off-Campus University, The Wall Street Journal, February 2, 1971.

and attendance at lectures when professors visit their ship.

In summary, there presently exist several non-traditional programs leading to the college degree. External degree or open university programs are being offered as a result of the efforts of both state systems and individual institutions of higher education. Such non-traditional methods present the student with the option of spending little or no time in the formal campus setting. Educational objectives are attained through a combination of innovative techniques and student initiative. The student plans his course of study with the assistance of the professional staff of the university. If appropriate, he may receive credit towards his degree for prior experiences. Alternatives to the traditional classroom such as independent study, correspondence instruction, mass media, and local regional study centers are utilized. In essence, the student's classroom can be the world. Educational experiences might range from a study of economic determinants of ghetto life in a local community to a study of international relations abroad.

Although the six models for external degree programs are found to some extent in America, such programs are most often a combination of the modes-of-learning and the administrative-facilitation models.



## Benefits of External Degree Programs

There are two potential benefits of external degree programs in higher education. The first pertains to accessibility, the second to finance.

If it is accepted as a given that no individual desirous of seeking to better himself through participation in higher education should be denied this right, the first benefit of external degree programs becomes apparent. Primarily aimed at the adult population, the open university makes the dream of a college degree a reality for many individuals who could not participate in higher education in the traditional sense. Included might be the mother of several children who cannot afford the time and expense of a traditional education, the handicapped, the geographically isolated, the working person, individuals who need a different pace from the traditional four year program, etc. As previously mentioned, over six million students are presently enrolled in the nation's colleges. This figure might grow appreciably in the future, although many institutions are currently experiencing a decline in enrollments. Regardless, a more highly diversified and mobile clientele will necessitate other than traditional methods of delivering educational services. The open university holds potential for rightening this imbalance through the utilization of innovative techniques that serve a diversity of educational needs.

Both the student and the system will hopefully benefit financially through the implementation of external degree programs. "In cases where students live at home, external degree programs cost

about half as much as an on-campus education; largely through savings in room, board, and transportation. At Syracuse, the external degree program costs about \$2,000 a year, compared with \$4,000 for resident students. Empire State's tuition is \$550, the same as that for on-campus students, but overall costs are estimated at \$800 a year, against \$1,700 to \$2,000 for resident students."<sup>35</sup>

A committee headed by Jerrold R. Zacharias drafted a planning report for the Massachusetts Institute of Technology. The Zacharias report stated that annual student expense for the external degree would be estimated at \$680, compared to a cost of \$1,500 at traditional campuses.<sup>36</sup>

Based upon the limited information to date on student costs at the open university, it appears that the traditional cost of a college education can be significantly reduced. A reasonable assumption would be that such costs can be cut in half. The implications of such a reduction in the cost of a college education are apparent.

External degree programs may possibly represent a viable financial alternative for society. If higher education is to adapt to the increasing educational needs of its constituents, it must

35

Ehrich, Thomas Lindley, Off-Campus University, The Wall Street Journal, February 2, 1971.

36

Eurich, Nell and Schwenkmeyer, Barry, Great Britain's Open University: First Chance, or Last Chance?, Academy for Educational Development, Inc., August, 1971.

serve a student body of 13 million by 1980. This figure represents an increase of three million students compared to present enrollments. The cost implications to meet such a challenge are astronomical. It has already been stated that a new campus to handle 5,000 students costs as much as \$100 million. Add to this figure the cost for faculty, equipment, and supplies, and staffing necessary for the maintenance of the facility, and the cost sky-rockets.

Much of the need for new facilities could be eliminated through external degree programs. The number of faculty needed could also be greatly reduced by the minimum of direct student contact involved in such a program. Of course, other expenses related to the operation of a campus could be greatly reduced if not eliminated. To date, however, external degree programs in America are quite new, and financial data pertaining to total costs for successful implementation of such programs is incomplete. Therefore, we can make no conclusive findings as to total cost implications at this time.

#### Developmental Experiences

As integral part of the admissions and academic planning process of the English and American external degree program is provision for the possibility of awarding academic credit for a student's life experiences that are appropriately related to his course of study. The existing program at Central Michigan University

utilizes the terminology of developmental experiences. The components of the program to award credit for developmental experiences at Central Michigan is characteristic of the other external degree programs. "There are two basic areas in which equated academic credit may be achieved. They are career (life experiences gained through actual experience in job-related activities, travel, community participation, and other sources provided these experiences are directly related to the degree being pursued) and training experience from related on-the-job instruction or special schools that have led to the development of the individual."<sup>37</sup> The translation of life experiences into academic credits is contingent upon counselor consultation. Credit by examination is also available to students who have experience or background comparable to university courses, providing that no transferable credit has been received in the courses. The College-Level Examination Program may be utilized to assess the general educational level of students who have acquired their education in non-traditional ways.

Of course, the phenomenon of awarding college credit for off-campus experiences is nothing new in America. It has been practiced for some time. Institutions that extensively award credit by examination generally utilize either an examination developed by

the particular institution, or the College-Level Examination Program (CLEP). The College Board initiated the CLEP in 1965 with the objective of establishing a national system of awarding college credit by examination. "CLEP was designed for people who learn through correspondence and university extension courses, educational television, adult education programs, on-the-job training, independent study, and life experience. Many of the nearly 1,000 colleges that participate in CLEP award credit to such non-traditional students for acceptable scores on the examination."<sup>38</sup> However, some colleges award only advanced placement.

"The College Level Examination offers three types of examinations. The General Examinations measure undergraduate achievement in English Composition, mathematics, natural sciences, humanities, and social sciences history. The Subjective Examinations measure achievement in 29 specific undergraduate subjects."<sup>39</sup> The Brief Tests are shorter versions of the Subject Examinations and are more suitable for the evaluation of groups of students rather than individuals.

It was previously mentioned that students enrolled in external degree programs may receive credit for life experiences

---

38

College Entrance Examination Board, The College-Level Examination Program in Action, College Board Review, Fall, 1971, no. 81, p. 17.

39

College Entrance Examination Board, The Facts About CLEP, College Board Review, Fall, 1971, no. 81, p. 19.

through the process of subjective evaluation. When appropriate, the student receives academic credit for what is learned through job experiences, travel, educational experiences, and other experiences he has derived that are directly related to his academic program. At present, the subjective decision as to the amount of academic credit a student is to receive for developmental experiences is being made via the student's counselor, major professor, a combination of counselor and major professor opinion, or by approved panels of academicians, businessmen, artists, writers, and other professionals in the appropriate field of study.

There exists no evidence as to the accuracy and validity of CLEP and other objective forms of examination. Nevertheless credit by examination does offer a standard format for educators to utilize as a guide in awarding credit for developmental experiences. On the other hand, the awarding of academic credit for life experiences through subjective evaluation varies greatly with the persons and institutions involved. If the external degree is to represent a viable alternative for American higher education, more expertise must be gained, and guidelines or standards established for the subjective evaluation of developmental experiences.

### Summary

Higher education in America is presently experiencing one of the most critical stages of its development. Projections made by the Carnegie Commission in 1971 indicated that enrollments would experience a continuous growth until the year 2000. However, institutions are currently faced with decreasing enrollments and diminishing resources. The very fabric and purpose of the institution of higher education is being questioned. Students and lay citizens are making charges against irrelevant curriculums and teacher tenure laws that foster incompetency and stagnation. Additional societal pressure is being applied for equal educational opportunity. Community and educational leaders throughout the nation are demanding that institutions revise their admission procedures to admit all with the potential to succeed and to provide them the resources necessary for success.

A changing clientele is also making the delivery of higher education services more complex. Present trends and future projections indicate a highly diverse and mobile student body. It is expected that many students will not enter college directly after high school, choosing to work and gain other experience instead. Once a student enters college, he is less likely to proceed straight through graduation, but will periodically exit from the campus setting in pursuit of various activities including travel. The effect of such a pattern will be a prolonging of the college education, often into the middle ages of one's life. A related development will be a growing emphasis upon education as a life long process.

In an attempt to respond to the foregoing developments, higher education is seeking alternatives to traditional educational concepts. An alternative that appears to hold the potential for serving large numbers of persons with minimum cost and facility requirements, while offering a quality program is the external degree. There presently exist in America numerous external degree programs and others are in the making. Most of such programs are patterned after the British Open University and seek to provide a quality program through a unique blend of teaching concepts such as television, radio, correspondence instruction, independent study, local study centers, etc. Students participating in external degree programs are generally expected to spend a minimum of time in the traditional campus setting. Their classroom can be the world.

An integral part of most external degree programs is provision for the possibility of awarding academic credit for developmental experiences. In order to receive college credit for learning acquired outside of the traditional educational setting, such learning must directly contribute to a student's course of study. Decisions as to the applicability of awarding credit for developmental experiences are made by both subjective and objective evaluations. Objective decisions for awarding credit are attained through the utilization of some form of testing. The College-Level Equivalency Examination is widely utilized in this respect. The validity of objective evaluation of developmental experiences is not substantiated at this time. However, such procedures do



provide a standard format for making decisions. Conversely, the subjective evaluation of developmental experiences adheres to no standard format or guidelines. Procedures vary with settings and with individuals. Consequently, the lack of standard procedures in the subjective evaluation of developmental experiences poses a threat to the development of the external degree as a viable educational alternative.

External degree programs are primarily designed to accommodate an adult population who cannot or wishes not to spend long periods of time in the traditional college setting. As such, many adults acquire developmental experiences in job related activities. If the external degree and the awarding of credit via subjective evaluation are to prove valid alternatives, we must examine the educational experiences that lend themselves to such evaluation and begin to establish appropriate procedures. Therefore, the present study will examine educational programs in Michigan business and industry and implications for awarding credit toward the external degree. Such implications will be derived through subjective evaluation. A description of the study is presented in Chapter II.

## CHAPTER II

## DESCRIPTION OF THE STUDY

## The Problem for the Study

External degree programs, as is the case with most innovations that depart from traditional practices, are the sources of much controversy. The skeptics of the open university fear that the quality of education will be impaired by a form of study that provides a minimum of direction to students and eliminates or lessens a student's contact with the traditional college setting. Such apprehension might be founded in the seemingly rapid rise of external degree programs, many of which proceed without adequate planning and coordination. A study of non-traditional learning conducted by the American Association for the Advancement of Science attests to this situation. The association reports, "We find that non-traditional study will continue to develop and grow in this country whether or not it is carefully planned with appropriate evaluations and safeguards to quality. We find that some existing institutions are rushing into these new forms of education with public commitments unsupported by detailed plans, whether of organization or programs."<sup>1</sup>

---

<sup>1</sup>  
American Association for the Advancement of Science,  
Science Education News, April 1, 1972.

10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218  
219  
220  
221  
222  
223  
224  
225  
226  
227  
228  
229  
230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274  
275  
276  
277  
278  
279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445  
446  
447  
448  
449  
450  
451  
452  
453  
454  
455  
456  
457  
458  
459  
460  
461  
462  
463  
464  
465  
466  
467  
468  
469  
470  
471  
472  
473  
474  
475  
476  
477  
478  
479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491  
492  
493  
494  
495  
496  
497  
498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
841  
842  
843  
844  
845  
846  
847  
848  
849  
850  
851  
852  
853  
854  
855  
856  
857  
858  
859  
860  
861  
862  
863  
864  
865  
866  
867  
868  
869  
870  
871  
872  
873  
874  
875  
876  
877  
878  
879  
880  
881  
882  
883  
884  
885  
886  
887  
888  
889  
890  
891  
892  
893  
894  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904  
905  
906  
907  
908  
909  
910  
911  
912  
913  
914  
915  
916  
917  
918  
919  
920  
921  
922  
923  
924  
925  
926  
927  
928  
929  
930  
931  
932  
933  
934  
935  
936  
937  
938  
939  
940  
941  
942  
943  
944  
945  
946  
947  
948  
949  
950  
951  
952  
953  
954  
955  
956  
957  
958  
959  
960  
961  
962  
963  
964  
965  
966  
967  
968  
969  
970  
971  
972  
973  
974  
975  
976  
977  
978  
979  
980  
981  
982  
983  
984  
985  
986  
987  
988  
989  
990  
991  
992  
993  
994  
995  
996  
997  
998  
999  
1000

Most, if not all, external degree programs offer to students the possibility of receiving academic credit for appropriate developmental experiences. Although the awarding of credit for developmental experiences is not novel to American higher education, the process is being subjected to renewed scrutiny when viewed in connection with the external degree. As previously indicated, there presently exists two methods of awarding college credit for life experiences. The first method is credit by examination, the latter, credit via subjective evaluation. In discussing external degree programs and credit for developmental experiences, we are primarily referring to an adult population. A great portion of such persons' time will be expended in job-related activities. Therefore, any attempt to evaluate life experiences in terms of college credit must take into consideration the kinds of job-related educational experiences that individuals receive and the precise nature of the resultant learning.

Business and industry is the largest employer of the American people. There also exists the general knowledge that business and industry has been active in providing educational programs to its employees. For example, the Ford Motor Company in Dearborn, Michigan offers adult education programs, apprenticeship programs, marketing, professional seminars, and the GED and CLEP examinations to its employees. Other major industries have similar offerings. However, a review of the literature reveals no organized and systematic study of the educational programs offered in major businesses and industries in Michigan.



The problem, therefore, is to conduct a systematic study of the educational experiences offered to employees in major businesses and industries in Michigan, and to evaluate these programs as to their equivalency to learning at the college level. Information of this nature will prove vital to the viability of external degree programs.

### Hypothesis

This study will explore the hypothesis that there presently exist in business and industry educational programs for employees that provide academic experiences equivalent to that offered in the baccalaureate college setting.

The study will be limited to major corporations in Michigan. A "major corporation" is defined as an industrial company employing 5,000 or more full time employees.

### Organization and Development of Study

The study of Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree consists of six rather distinct phases. These phases might be identified as follows:

Phase I: Preliminary visits to companies in the Detroit area



- Phase II: Mailing of materials identifying the nature of the study and soliciting the participation of major businesses and industries in Michigan
- Phase III: Mailing of the questionnaire and related information to participating companies
- Phase IV: Follow-up visits to each participant as their completed questionnaire and supportive materials were received
- Phase V: The evaluation by Michigan State University faculty of course materials submitted
- Phase VI: The evaluation and report of findings and implications

In an effort to ascertain the feasibility of the study of "Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree," several visits of an exploratory nature were made to industries in the Detroit, Michigan area. Companies visited during this period included Ford Motor Company, Federal Mogul, and Chrysler. Several visits to the Ford Motor Company proved helpful in establishing the total concept for the study. However, this company's representatives surprisingly took a rather passive role as the study progressed. The purposes for such visits were:

1. To identify the receptiveness of companies to participate in the study





2. To identify the spectrum of educational programs provided to employees
3. To identify the potential level and nature of such programs
4. To identify the kinds of data companies would be willing to provide relevant to the study
5. To collect relevant materials for purposes of review

The exploratory visits revealed that Michigan business and industry are providing a wide range of educational programs to their employees. Such programs take the form of adult and continuing education, training programs, marketing institutes, professional seminars, and the like. It was also indicated by company officials that they were eager to explore the possibility of awarding college credit to employees that have engaged in appropriate educational experiences provided by the company. The general trend of thinking that prevailed was that such an option would provide employees with an increased motivation to pursue educational objectives, and that the company would benefit by having better qualified and informed employees. An added benefit to the employee would be that his opportunities for advancement within the company would frequently be improved, and he would also increase his employability. Further visits of a preliminary nature were made to the

Michigan Department of Commerce, the Michigan Department of Education, and certain faculty members at Michigan State University in an attempt to identify pertinent data and information.

Upon completion of the preliminary visits, materials were mailed to Michigan corporations of 5,000 or more employees<sup>2</sup> inviting them to participate in the study. These Phase II materials included a letter explaining the nature and objectives of the study, an outline of information to be requested, and a statement of willingness to participate in the study. The initial mailing of materials went to some 39 companies. Materials included in this first mailing are presented as Appendix A. Table I presents a listing of all companies included in this first mailing. Table II lists the companies that initially agreed to participate in the study and the names of persons identified for this purpose. The companies that declined participation are presented in Table III, and where indicated the reason for declining also appears. Tables I, II, and III are identified with Phase II of the study.

---

2

Companies employing 5,000 or more employees were identified via the Directory of Michigan Manufacturers published by the Manufacturer Publishing Company, Detroit, Michigan, 1971.

TABLE I: PHASE II - COMPANIES ASKED TO PARTICIPATE IN STUDY

American Motors Corporation 14250 Plymouth Road Detroit, Michigan 48232	Cleveland-Cliffs Iron Co. Isheming, Michigan 49849
Ausco Auto Specialities Mfg. Co. Graves Street St. Joseph, Michigan 49085	Consumers Power Company 212 W. Michigan Avenue Jackson, Michigan 49202
Awrey Bakeries 5231 Tireman Avenue Detroit, Michigan 48204	Corning Glass Works North & Clark Streets Albion, Michigan 49224
Brunswick Corporation 525 W. Laketon Avenue Muskegon, Michigan 49443	Detroit Edison Company 2000 Second Avenue Detroit, Michigan 48226
Budd Company 12141 Charlevoix Detroit, Michigan 48215	Dow Chemical Company 825 E. Main Midland, Michigan 48640
Burroughs Corporation 6071 Second Avenue Detroit, Michigan 48232	Ex-Cell-O Corporation 1200 Oakman Blvd. Detroit, Michigan 48238
Campbell, Wyant & Cannon Foundry Company South Haven, Michigan 49090	Electro-Voice, Inc. 600 Cecil Street Buchanan, Michigan 49107
Chrysler Corporation 341 Massachusetts Avenue P.O. Box 1919 Detroit, Michigan 48231	Federal Mogul Corporation P.O. Box 1966 Detroit, Michigan 48235
Clark Equipment Company Industrial Truck Division 525 N. 24th Street Battle Creek, Michigan 49016	Ford Motor Company The American Road Dearborn, Michigan 48121
Clark Equipment Company Construction Machinery Division P.O. Box 547 Benton Harbor, Michigan 49022	General Motors Corporation 3044 W. Grand Blvd. Detroit, Michigan 48202



TABLE I: (continued)

General Electric Company  
Hermetic Motor Department  
570 E. 16th Street  
Holland, Michigan 49423

Gerber Products Company  
445 State Street  
Fremont, Michigan 49412

Gibson Products Corporation  
515 Gibbon Drive  
Greenville, Michigan 48838

Goodyear Tire & Rubber Company  
2219 Chapin Street  
Jackson, Michigan 49204

Great Lake Steel  
Tecumseh Road  
Detroit, Michigan 48229

Howmet Corporation  
Misco Division  
221 West Webster Avenue  
Muskegon, Michigan 49440

Huron Cement Company  
1300 Ford Building  
Detroit, Michigan 48226

Kelsey-Hayes Company  
38481 Huron River Drive  
Romulus, Michigan 48174

King-Seeley Thermos Company  
315 S. First Street  
Ann Arbor, Michigan 48108

McCord Corporation  
2850 W. Grand Blvd.  
Detroit, Michigan 48202

McLouth Steel Corporation  
300 S. Livernois Avenue  
Detroit, Michigan 48217

Michigan Bell Telephone Co.  
1365 Cass  
Detroit, Michigan 48226

Michigan Consolidated Gas Co.  
Division of Questes Corp.  
1839 6th Street  
Muskegon, Michigan 49443

Parke, Davis & Company  
Post Office Box 118  
Detroit, Michigan 48232

Pneumo Dynamics Corporation  
National Water Lift Division  
2220 Palmer Street  
Kalamazoo, Michigan 49001

Sanders, Fred, Company  
100 Oakman Blvd.  
Highland Park, Michigan 48203

Sealed Power Corporation  
2001 Sanford Street  
Muskegon, Michigan 49443

Simplicity Pattern Company  
Western Michigan University  
Kalamazoo, Michigan

Upjohn Company  
7000 Portage Street  
Kalamazoo, Michigan 49001



TABLE II: PHASE II - COMPANIES AGREEING TO PARTICIPATE IN STUDY

<u>Company and Address</u>	<u>Person and Position</u>
Ausco Auto Specialities Mfg. Co. Graves Street St. Joseph, Michigan 49085	Barry Davis Personnel Director
Burroughs Corporation Burroughs Place Detroit, Michigan 48232	R. J. Casey Director, Personnel Adm.
Chrysler Corporation P.O. Box 1919 Detroit, Michigan 48213	Wayne Grimm Director, Education and Training
Clark Equipment Company Industrial Truck Division 525 N. 24th Street Battle Creek, Michigan 49016	R. A. Johnson General Superintendent, Training
Clark Equipment Company Construction Machinery Division P.O. Box 547 Benton Harbor, Michigan 49022	Gordon Fowler Experimental Laboratory and Test Manager
Consumers Power Company 212 W. Michigan Avenue Jackson, Michigan 49201	E. J. Meeuson Director of Organizational Development
Corning Glass Works North & Clark Streets Albion, Michigan 49224	N. C. McPhearson Personnel Director
Dow Chemical Company 2020 Dow Center Midland, Michigan 48640	Gary Paul Robold Director of Academic Education
Federal Mogul Corporation P.O. Box 1966 Detroit, Michigan 48235	Samuel E. MacArthur Chairman and Chief Executive Officer
Ford Motor Company The American Road Dearborn, Michigan 48121	
General Motors Corporation General Motors Building Detroit, Michigan 48202	C. A. Franke Director of Education and Training



TABLE II:     (continued)Company and AddressPerson and Position

Gerber Products Company  
445 State Street  
Fremont, Michigan 49412

Kent R. Hedman  
Office Personnel Manager

Gibson Products Corporation  
515 Gibbon Drive  
Greenville, Michigan 48838

C. J. Gibson, Jr.  
President

Great Lakes Steel Corporation  
Tecumseh Road  
Detroit, Michigan 48229

R. J. Goulder, Supervisor  
Management and Technical  
Employment

McCord Corporation  
2850 W. Grand Blvd.  
Detroit, Michigan 48202

Vere McClement  
Manager, Manpower Development

McLouth Steel Corporation  
300 S. Livernois Avenue  
Detroit, Michigan 48209

G. D. Baldwin  
Vice-President, Finance

Parke, Davis & Company  
P.O. Box 118  
Detroit, Michigan 48232

H. G. Maltzaw  
Director of Training and  
Development

Sealed Power Corporation  
2001 Sanford Street  
Muskegon, Michigan 49443

J. Glenn Smith  
Director of Manpower Planning

Simplicity Pattern Company  
Western Michigan University  
Kalamazoo, Michigan

Frank S. Scott  
Consultant for Supervisory and  
Executive Training

TABLE III: PHASE II - COMPANIES NOT PARTICIPATING IN STUDY

<u>Company</u>	<u>Reason</u>
American Motors Corporation 14250 Plymouth Road Detroit, Michigan 48232	No such program
Awrey Bakeries 5231 Tireman Avenue Detroit, Michigan 48204	No such program
Brunswick Corporation 525 W. Laketon Avenue Muskegon, Michigan 49443	No such program
Budd Company 12141 Charlevoix Detroit, Michigan 48215	No such program
Campbell, Wyant & Cannon Foundry Company South Haven, Michigan 48232	No such program
Cleveland-Cliffs Iron Company Ishpeming, Michigan 49849	No such program
Electro-Voice, Inc. 600 Cecil Street Buchanan, Michigan 49107	No such program
Ex-Cell-O Corporation 1200 Oakman Blvd. Detroit, Michigan 48238	No such program
General Electric Company Hermetic Motor Department 570 E. 16th Street Holland, Michigan 49423	Will not participate in the study
Goodyear Tire & Rubber Company 2219 Chapin Street Jackson, Michigan 49204	No such program
Howmet Corporation Misco Division 221 W. Webster Avenue Muskegon, Michigan 49440	No such program

TABLE III:     (continued)

<u>Company</u>	<u>Reason</u>
Huron Cement Company 1300 Ford Building Detroit, Michigan 48226	No such program
Kelsey-Hayes Company 38481 Huron River Drive Romulus, Michigan 48174	No such program
King-Seeley Thermos Company 215 S. First Street Ann Arbor, Michigan 48108	No such program
Michigan Bell Telephone Company 1365 Cass Detroit, Michigan	No such program
Michigan Consolidated Gas Company One Woodward Avenue Detroit, Michigan 48226	No such program
Motor Wheel Corporation 1600 N. Larch Lansing, Michigan 48914	No such program
Pneumo Dynamics Corporation National Water Lift Division 220 Palmer Street Kalamazoo, Michigan 49001	No such program
Upjohn Company 7000 Portage Street Kalamazoo, Michigan 49001	No such program

The second mailing went out in July, 1972, to those companies agreeing to participate in the study. This Phase III mailing included the following:

1. A correspondence thanking the companies for their cooperation and indicating the nature of the questionnaire to be completed
2. An instruction sheet for completion of the questionnaire
3. Part I and Part II of the questionnaire

The questionnaire forwarded to participants in the study consisted of two parts. Part I included items descriptive of each program. Therefore, it was requested that a Part I be completed for each program under consideration. Part II pertained to the courses of study within each program. Thus, a Part II was to be completed for each course within a particular program. It was requested that the questionnaire and supporting materials be returned prior to August 8, 1972. The materials included in the July mailing are presented as Appendix B.

Phase III of the study witnessed the withdrawal of several participants from the study for varying reasons. Table IV lists those companies that at this point chose not to further participate in the study. However, there were also some additions to the study. Several out-state consultant type firms are responsible for various training programs at some participating companies. As such, these consulting firms enthusiastically agreed to participate in this

TABLE IV: PHASE III - WITHDRAWALS

<u>Company</u>	<u>Person and Position</u>
Ausco Auto Specialities Mfg. Co. Graves Street St. Joseph, Michigan 49085	Barry Davis
Gerber Products Company 445 State Street Fremont, Michigan 49412	Kent R. Hedman Office Personnel Manager
Great Lakes Steel Corp. Tecumseh Road Detroit, Michigan 48229	R. J. Goulder, Supervisor Management and Technical Employment
McLouth Steel Corporation 300 S. Livernois Avenue Detroit, Michigan 48209	G. D. Baldwin Vice-President, Finance
Sealed Power Corporation 2001 Sanford Street Muskegon, Michigan 49443	J. Glenn Smith Director of Manpower Planning and Management Development



study of educational programs in business and industry. The companies included in this category and their Michigan affiliates are presented in Table V.

As the questionnaires and materials pertaining to the programs under consideration were being returned, Phase IV of the study went into operation. This phase consisted of follow-up visits to each participating company that had returned its materials. The purpose of such visits were as follows:

1. To clarify any ambiguities pertaining to information received
2. To determine from information submitted the courses most appropriate for inclusion in the study
3. To arrange to acquire instructional and course materials utilized

Phase IV again evidenced some fatality. Although all participants that remained in the study to this point returned their completed questionnaires, repeated attempts to acquire instructional materials proved futile in two instances. Included in this category were McCord Corporation and Clark Equipment Company, Battle Creek. As such the participants that remained in the study to its concluding phase totaled 15. This number includes the four out-state consultant firms that were previously mentioned. Table VI presents a list of the companies that remained for the evaluative or concluding phase of the study.

TABLE V: PHASE III - ADDITIONAL PARTICIPANTS

<u>New Participant</u>	<u>Contact Person</u>	<u>Sponsoring Company</u>
American Management Association, Inc. The American Management Association Building 1135 West 50th Street New York, New York 10020	James E. Shea Program Director Marketing Division	Parke, Davis
Kepner-Tregor, Inc. P.O. Box 704 Research Rd. Princeton, New Jersey 08540	Robert J. Velk Marketing Manager	Parke, Davis; Ford; General Motors
Scientific Methods, Inc. Box 195 Austin, Texas 78767	Anthony Pearson General Manager	Parke, Davis
Teleometrics International Suite 4-A 2210 North Frazier Conroe, Texas 77301	Jay Hall President	Corning Glass



TABLE VI: PHASE IV - COMPANIES PARTICIPATING THROUGHOUT THE STUDY

<u>Company and Address</u>	<u>Person and Position</u>
American Management Association, Inc. The American Management Association Bldg. 135 West 50th Street New York, New York 10020	James E. Shea Program Director Marketing Division
Burroughs Corporation Burroughs Place Detroit, Michigan 48232	R. J. Casey Director, Personnel Adm.
Chrysler Corporation P.O. Box 1919 Detroit, Michigan 48231	Wayne Grimm Director, Education and Training
Clark Equipment Company Construction Machinery Division P.O. Box 547 Benton Harbor, Michigan 49022	Gordon Fowler Experimental Lab and Test Manager
Consumers Power Company 212 W. Michigan Avenue Jackson, Michigan 49202	E. J. Meeuson Director of Organizational Development
Corning Glass Works North & Clark Streets Albion, Michigan 49224	N. C. McPhearson Personnel Director
Dow Chemical Company 2020 Dow Center Midland, Michigan 48640	Gary Robold Director, Academic Education
Federal Mogul Corporation P.O. Box 1966 Detroit, Michigan 48235	Samuel E. MacArthur Chairman & Chief Executive Officer
General Motors Corporation 3044 W. Grand Blvd. Detroit, Michigan 48202	C. A. Francke Director of Education and Training

TABLE VI:    (continued)Company and AddressPerson and Position

Gibson Products Corporation  
515 Gibbon Drive  
Greenville, Michigan 48838

C. J. Gibson, Jr.  
President

Kepner-Tregor, Inc.  
P.O. Box 704  
Research Road  
Princeton, New Jersey 08540

Robert J. Velk  
Marketing Manager

Parke, Davis & Company  
P.O. Box 118  
Detroit, Michigan 48232

H. G. Maltzaw  
Director of Training and  
Development

Scientific Methods, Inc.  
P.O. Box 195  
Austin, Texas 78767

Anthony Pearson  
General Manager

Simplicity Pattern Company  
Western Michigan University  
Kalamazoo, Michigan

Frank S. Scott  
Consultant for Supervisory  
and Executive Training

Teleometrics International  
Suite 4-A  
2210 N. Frazier  
Conroe, Texas 77301

Jay Hall  
President

Phase V of the study consisted of the evaluation of course materials submitted as to the implications for receiving college credit for learning via educational experiences in business and industry. To attain this end, Michigan State University faculty members were asked to evaluate the course materials submitted. Faculty were selected according to the areas of expertise appropriate to the courses being considered. The procedure of selection was to forward letters soliciting the participation of certain faculty members. These letters generally went to the department chairman and to individuals identified by him as having the expertise and interest to make significant inputs. Three faculty members in each appropriate area of expertise were asked to participate in the evaluative phase of the study. Upon receipt of notification of a willingness to participate, the materials under consideration, a set of instructions for completing the evaluation, and the evaluating instrument were delivered to appropriate individuals. Evaluations were made on an individual basis. A list of participants/department in the evaluation stage of the study along with the correspondence, instructions and evaluation instrument are presented as Appendix C. This phase of the study was initiated in February, 1973, and concluded in April.

Obviously, the components of the study discussed heretofore would be of little significance without an evaluation and report of findings, and a statement of implications derived. Therefore, the sixth and concluding phase of the study was designed to attain this end.

## Method of Evaluation

In requesting Michigan State University faculty members to evaluate the course materials submitted by companies participating in this study, it was believed that certain indicies were desirable.

First, if the alternative of awarding college credit for educational experiences received in the non-traditional setting is to be explored, some degree of overlap with present university offerings appear essential. Therefore, faculty were asked to evaluate the course materials in terms of whether or not there was an overlap of present university offerings.

Second, if there exists such overlap, it is necessary to ascertain whether it occurs at a sufficient level to consider awarding college credit to a participant who can demonstrate that he successfully mastered the subject. Faculty were asked to evaluate materials from this perspective.

In the event that the course does present a sufficient degree of overlap and if an applicant is able to demonstrate successful mastery of the subject content, the issue is raised as to what amount of academic credit is appropriate. Therefore, where pertinent, faculty were asked to respond with the appropriate amount of academic credit. It is important to note here that the reaction to the program was not one of accrediting in the sense that

those who completed it could be awarded credit on a transfer basis. Rather, the emphasis was placed upon program quality and relevance to university courses, but with the expectation that anyone seeking credit would have to demonstrate his own capability.

There presently exists several potential methods for determining the applicability of awarding academic credit for developmental experiences. Such procedures include:

- a. Counselor and/or faculty oral evaluation
- b. Standardized test results
- c. Department examination
- d. Combination of a and b
- e. Combination of a and c
- f. Combination of b and c
- g. Combination of a, b, and c
- h. Other

Faculty were requested to indicate the appropriate procedure for determining the applicability of awarding college credit. In instances where no suitable alternative appeared, faculty were asked to indicate appropriate procedures.

If the potential awarding of college credit for appropriate educational experiences however achieved is to develop as a viable educational alternative, it is necessary to gain knowledge of the concerns and cautions of experts in moving in this direction. Thus, faculty were asked to comment freely on such concerns and cautions.

Data obtained as a result of the evaluation of educational materials considered in this study were subjected to analysis, and reported in the form of appropriate statistics, charts, graphs, etc. These findings are presented in Chapter IV.

## Summary

The study of "Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree" evolved out of an interest in the provision of alternative forms of education to a primarily adult constituency. The development of external degree programs in America represent a potentially viable alternative to higher education in the traditional sense. An aspect of most external degree programs is provision for the possibility of awarding college credit for a student's developmental experiences that will directly contribute to his course of study. Decisions as to the appropriateness of awarding college credit for developmental experiences are made through either objective or subjective evaluation. The validity of decisions by way of objective evaluation cannot be substantiated at this time. However, such procedures do provide a standard format for awarding academic credit for developmental experiences. Conversely, subjective decisions as to awarding credit for appropriate developmental experiences occur outside of any standard format and procedures vary with place and individuals concerned. If the external degree is to realize its potential as a viable alternative to higher education, standard procedures and guidelines must be developed for the subjective awarding of academic credit for developmental experiences. In order to arrive at such standards it is necessary to gain knowledge of the types of educational experiences that are available to

adults outside of the campus setting. Once such knowledge is acquired, it is necessary to evaluate this information as to the implications for awarding credit toward the external degree. As studies of this nature are replicated, it will be possible to provide guidelines as to standard procedures for awarding academic credit via subjective evaluation. In that business and industry is one of the nation's largest employers and has traditionally sponsored educational experiences for its employees, it was decided that the current study should focus upon educational programs in business and industry and implications for receiving credit toward the external degree.

This study focuses upon Michigan corporations employing 5,000 or more employees. Not all companies of this size, however, are significantly involved in providing educational experiences to employees. Of those that do, eleven companies and four consulting firms participated through the conclusion of the study. Participating companies completed a two-part questionnaire, consented to personal interviews and submitted materials utilized in their instructional programs. All pertinent materials were subsequently evaluated by Michigan State University faculty. The objective of such evaluation was to determine the applicability for awarding college credit for learning via these experiences. This study concluded with an evaluation and report of findings, and a statement of implications derived. A description of the programs and/or courses included for consideration, and a discussion of the indices upon which data was collected is to follow.



1000

1001

1002

1003

1004

1005

1006

1007

1008

1009

## CHAPTER III

## REPORT OF FINDINGS

## Indices for Data Collection

The collection of information pertinent to the study of "Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree" was based upon two criteria. First, it was necessary to collect accurate information for testing the hypothesis. Second, inquiries had to be consistent with company policies concerning the release of privileged information. To accomplish this, meetings were held with various company officials to discuss the information that seemed appropriate. Through a process of trial and elimination, it was decided that the study of educational programs in business and industry should be based upon the following outline:

- I. Nature of the program
  - A. In-service training
  - B. Job upgrading
  - C. Adult or continuing education
  - D. Other
- II. Program objectives
  - A. General objectives
  - B. Specific objectives
  - C. Educational goals or competencies to be achieved

- III. Program or courses of study
  - A. Nature of each course
  - B. Objectives of each course
  - C. Materials to be utilized
  - D. Procedures for evaluation
  - E. Standards and possible levels of attainment
- IV. Characteristics of the student body
  - A. Educational background
  - B. Employment level
- V. Characteristics of instructor
  - A. Educational background
  - B. Employment level
- VI. Participation
  - A. Number of employees enrolled in program during 1971
  - B. Number successfully completing program
- VII. Benefits to employee
  - A. Terms of employment during instruction
  - B. Cost of program to employee
  - C. Opportunities for advancement as a result of program involvement
  - D. Receipt of college credit
- VIII. Attitude of company
  - A. Company evaluation
  - B. Benefits to company

The above items proved agreeable to all concerned and data was collected accordingly. A presentation of findings is to follow.

### Presentation of Findings

The findings to be presented were obtained via the two-part questionnaire contained in Appendix A. Discussion of programs included in the study will take place within the general context of the indices previously outlined. A detailed description of each program may be found in Appendix D.

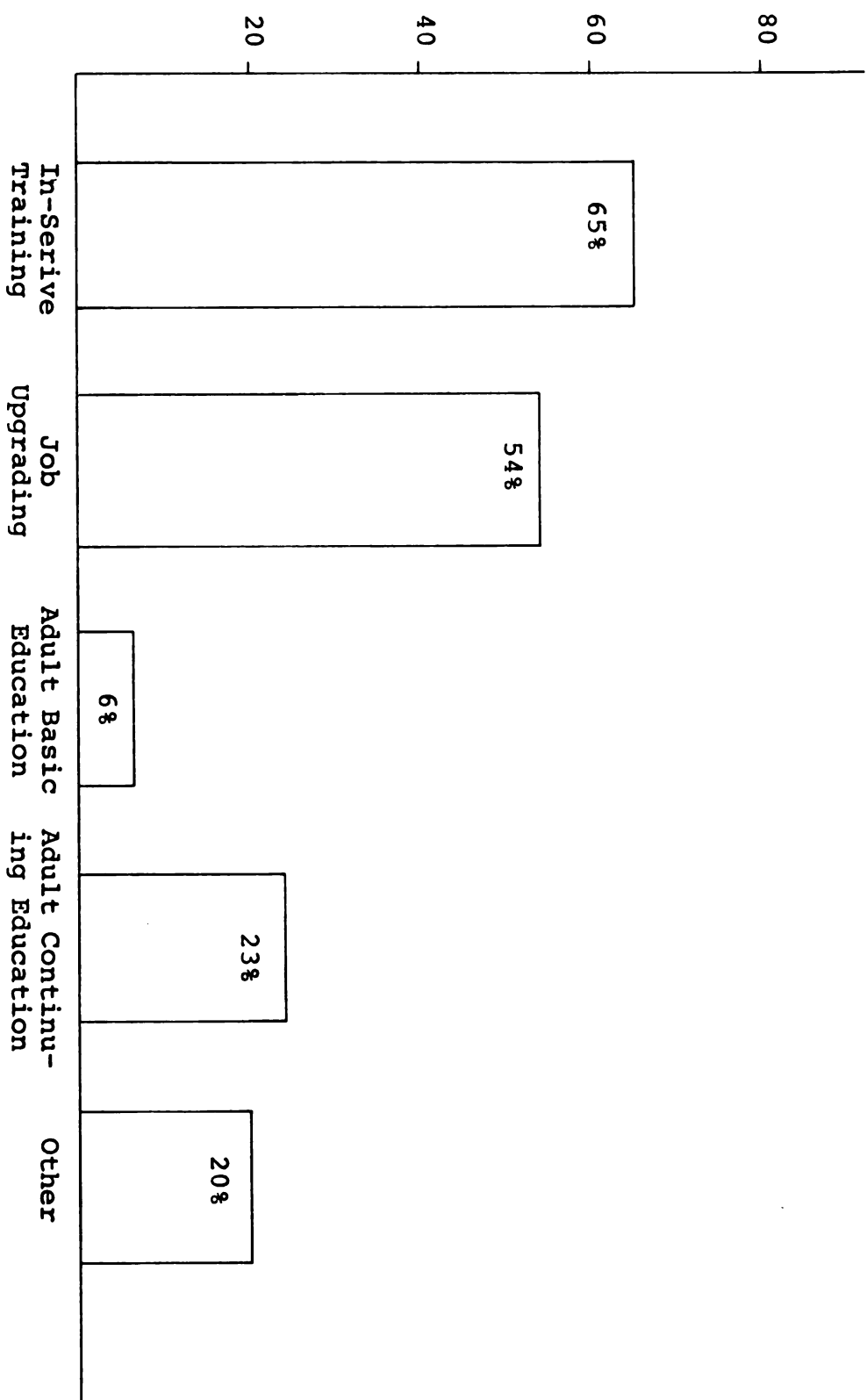
The objective of the present study is to explore the types of educational experiences that are available to employees in Michigan business and industry, and to evaluate them in terms of the implications for receiving college credit for learning so acquired. Upon receiving an adequate explanation of the external degree concept along with the evaluation of developmental experiences for the possibility of receiving college credit, company officials enthusiastically supported these concepts and the objectives of this study. They unanimously felt that much of the learning obtained by employees via business and industry was equivalent to learning at the college level, and that employees should be encouraged to seek college credit for appropriate learning via experiences outside the formal educational structure.

Data collected through the questionnaires utilized in this study along with personal visits to participating companies revealed that Michigan business and industry makes available to its employees a wide range of courses varying in nature and complexity. This finding is in keeping with industry's claim that it is taking a more



humanistic perspective toward its employees. The more established companies with well developed educational programs have "on-going" offerings designed to meet the needs of employees at every organizational level. Companies such as Ford, Chrysler, and General Motors would be included in this category. Other companies concentrate on programs that meet specific needs at varying points in time and lack the basic or general education component. Included in this description would be companies such as Simplicity Patterns. Educational programs are offered by business and industry primarily for purposes of in-service training, job upgrading and adult or continuing education. Although the general educational background of employees is of concern, the great majority of company courses are classified as in-service training and job upgrading. This is as expected since the success of the company is contingent upon employees having adequate knowledge to perform in a competent manner, and upon the preparation of persons to assume more responsible roles within the organization. Figure 1 identifies by percentages of the total number of courses considered, the nature of courses included in this study of educational programs in business and industry. As Figure 1 indicates, of the 31 courses evaluated, the majority were characterized as either in-service training or job upgrading. Some programs were classified as combinations of two or more types. Sixty percent of the 31 courses included in this study pertain to the area of management. This is as expected since the management function is most vital to company stability. Forty percent of the courses are offered for the purpose of skill improvement.

FIGURE 1: NATURE OF PROGRAMS



The programs included in this study were generally well planned and implemented. Overall, courses were offered at a relatively high level of complexity but varied relative to the subject matter and target group being considered. (See Table VII.) Courses of a complex nature might include among others:

1. The Chrysler Corporation's Management for Supervisors and Certificate in Industrial Management Programs which are addressed to general foremen and superintendents
2. The General Motor's course in Dealership Management Development
3. The Parke, Davis and American Management's course in Product Brand Management

Courses of a less sophisticated or complex nature would for obvious reasons include:

1. Consumers Power's courses in Fundamentals of Electricity and Fundamentals of Natural Gas
2. Chrysler Corporation's programmed learning courses in Skill Improvement

Without exception the programs included in this study of educational programs in business and industry were judged by company officials as being successful in attaining their objectives. In instances where company officials felt that private educational organizations or consultant firms could do a better job of organizing and possibly instructing courses designed to meet the company's objectives, such firms were contracted for these purposes.



TABLE VII: COURSES BY COMPANY AND COMPLEXITY

Company	Course	Complex	Less Complex	Least Complex
Burroughs Corp.	Basic Hardware and Software	X	X	
	COBOL			
	Data Communications			
	Hardware-Software			
Chrysler	Foreman Induction Program		X	
	Management for Supervisors	X		
	Certificate Program in			
	Industrial Management	X		
	Basic Electronics			X
Clark Equipment	Laboratory Techniques of			
	Stress Analysis			X
	Basic Elements of Hydraulics		X	
	Slide Rule Simplified			X
	Basic Statistics		X	
Consumers Power	Fundamentals of Electricity I			X
	Fundamentals of Natural Gas			X
	Effective Management		X	
	Basics of Job Management Skills			X
	Fundamentals of Electricity II			X
Corning Glass Works				
Ford Motor Corp.				
Teleometrics International	Models for Management	X		
	The Mechanical Behavior of			
Dow Chemical	Polymers		X	
	Basic Management Skills		X	
Federal Mogul	Foreman Training Program		X	
	Presentation Technique			X
	Middle Management Training			
	Program	X		

TABLE VII: (continued)

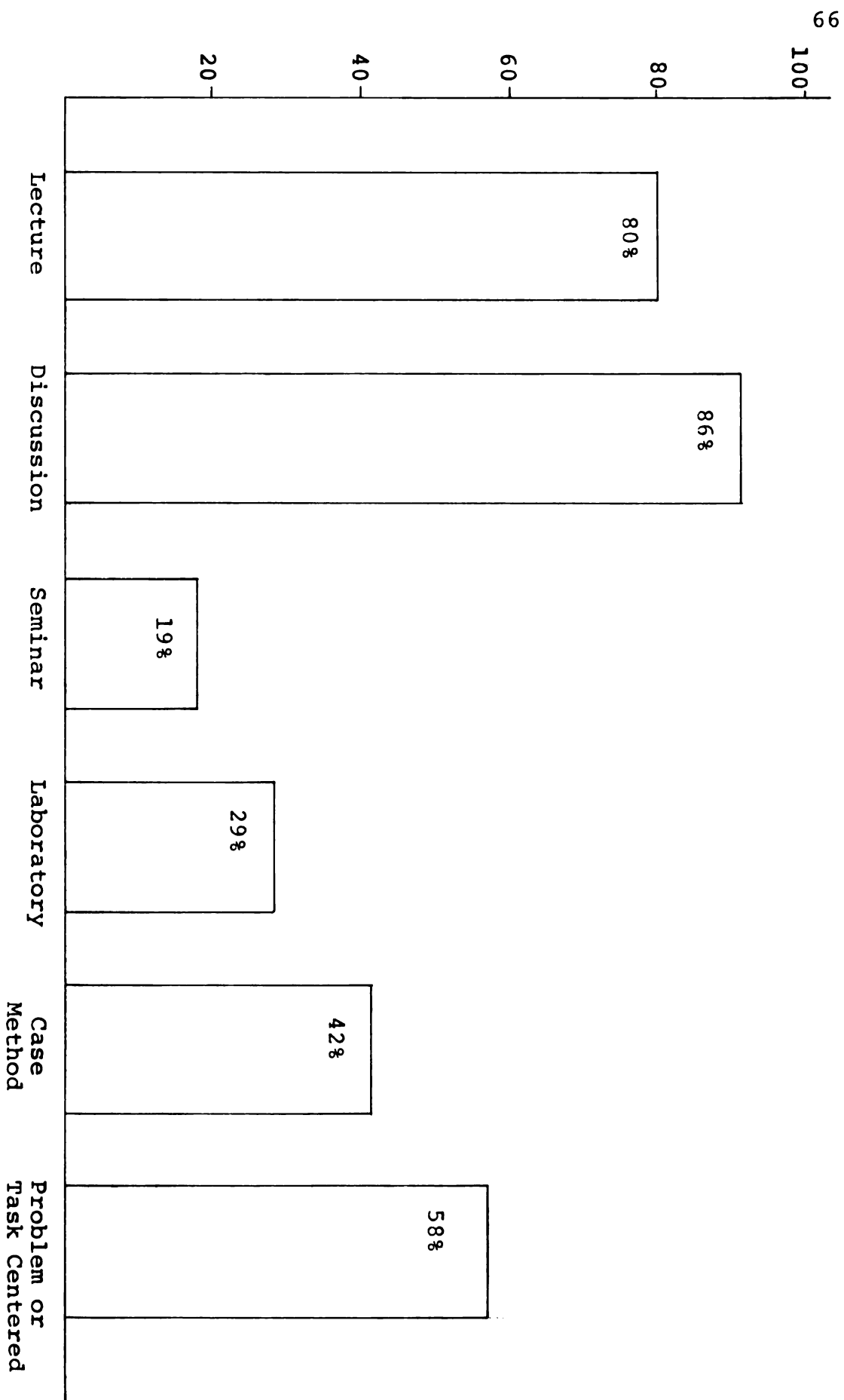
Company	Course	Complex	Less Complex	Least Complex
General Motors Corp.	Management Relationships and Responsibilities		X	
	Dealership Management Development	X		
	Intermediate Management Program		X	
Gibson Products	Summer Internship			X
Parke, Davis and Scientific Methods	Managerial Grid	X		
	Product and Brand Management	X		
Parke, Davis and Kepner-Tregoe	Problem and Decision Analysis	X		
Simplicity Patterns	Supervisory Development I and II		X	

Consultant firms involved in this study include the American Management Association, Kepner-Tregoe Associates, Scientific Methods Corporation, and Teleometrics International. (Refer to Table V for proper affiliation.) Course objectives are naturally developed to meet the specific needs of the company, and learning experiences are designed accordingly. However, the objectives and specific experiences often are appropriate for some credit at the college level. Course offerings were well designed and often extremely creative. In general, they are more practical than related offerings at the college level which are frequently regarded in the companies as too theoretical and not well oriented to the real world. Course content often includes materials and experiences that simulate true working conditions, sometimes to the extent of establishing relevant crises in the classroom and assigning their resolution to individuals or teams. Case materials were also frequently utilized for this purpose. For example, the General Motors course in Management Relationships and Responsibilities utilizes cases developed at Harvard.

#### Class Components

Courses offered by business and industry were found to consist of the same class components as those found in the college setting. For purposes of this study, possible class components include the lecture, discussion, seminar, laboratory, case method, and problem or task centered activity. Data collected indicates a preference for the lecture and discussion as class component in the industrial setting. Figure 2 presents the percentages of utilization of class components in the courses included in this

FIGURE 2: UTILIZATION OF CLASS COMPONENTS



study. Of course, several components might be used in conjunction with one another in any given course. Findings indicate that the same class components are utilized in business and industry with approximately the same frequency as in our institutions of higher learning. The lecture and discussion were most frequently utilized in the industrial setting just as they are on the college campus. Case materials and problem centered activity were utilized to a lesser extent than lecture and discussion by business and industry but perhaps comparable to the rate of utilization in the college setting. The least utilized class components in the study were the seminar and laboratory, which were utilized in the more advanced and technical programs respectively. This rate of utilization, we suspect, would again be comparable to that in graduate and technical courses at the college level. However, no attempt was made to systematically compare class components in business and on the campus.

#### Instructional Materials

A variety of materials are utilized for instructional purposes by business and industry. Included are books, films, tapes, printed materials other than books, and equipment. The rates of utilization of these materials were relatively uniform being 45%, 45%, 39%, 65%, and 35% respectively. In a number of instances texts utilized for instructional purposes by industry are either utilized at the college level, or thought by the instructors to be equivalent. For example, the Chrysler Certificate Program in Industrial Management utilizes college level texts; the General Motors Management Relationships and Responsibilities utilizes the "Harvard Cases"; the

Parke, Davis-Kepner-Tregoe course in Problem and Decision Analysis utilizes "The Rational Manager" by Charles H. Kepner and Benjamin B. Tregoe as its text; "The Managerial Grid" by Blake and Mouton is the text utilized in the Parke, Davis-Scientific Methods' Managerial Grid course; the Parke, Davis-American Management program in Product and Brand Management utilizes the texts "Launching the New INdustrial Product" by Phillips Gisser, and "Product Management" by George S. Dominguez. Several courses utilize materials other than texts, such as cases and printed matter, that are considered by instructors to be appropriate for utilization at the college level. Therefore, there frequently seems to be little or no disparity between the level of complexity in instructional materials utilized at our colleges and universities, and those utilized in business and industry.

#### Standards

Discussions with faculty members involved in the traditional college experience and comments obtained from Michigan State University faculty respondents to the materials indicate three primary areas of apprehension on the part of professors in considering the awarding of college credit for developmental experiences: (1) the standards for successful completion of courses; (2) the quality or characteristics of the instructors; and (3) the existence of definite standards and of any formal evaluation of the achievement of them.

In this study, two conditions or standards were regularly identified by company officials as being necessary for the successful completion of courses. These were: (1) regular attendance; and (2) the completion of specified tasks. Over 77% of respondents indicated that regular attendance was necessary for the successful completion of their course. Some 42% of the courses considered required the completion of specified tasks. Thirty-five percent of the courses required a combination of regular attendance and the completion of several specified tasks. Examples of tasks to be completed include:

<u>Company</u>	<u>Course</u>	<u>Task</u>
Chrysler Corp.	Management for Supervisors	Completion of several psychological instruments
Chrysler Corp.	Certificate Program in Industrial Management	Problem analysis of cases and determination of solutions
Federal Mogul	Middle Management Training	Submission of a week long case study
Parke, Davis	Managerial Grid	Several tasks assigned daily and completed on both individual and learn basis
Simplicity Patterns	Supervisory Development II	Requires a paper entitled "My Philosophy of Supervision"

#### Formal Evaluation

The majority of courses that are offered in business and industry are conducted in an atmosphere of mutual trust, and designed to be beneficial and non-threatening to the employee. Motivation is usually high. Therefore, formal evaluation in the form of grades and some form of testing frequently does not exist. However, some

courses are structured along similar lines as our traditional college courses and do combine testing and/or grading. (Included in this category would be those programs described as being more complex.)

The Chrysler Certificate Program in Industrial Management utilizes a grading system of A, B, C, D, and N.C. Formal evaluation occurs via objective examinations and reports. This program is considered by two state universities as being equivalent to an Associate Degree at the community college, and employees successfully completing this program may be awarded two years of credit toward the Baccalaureate Degree in management. Employees participating in the Chrysler Management for Supervisors Program are not graded but are evaluated on written reports and through random survey of on-the-job usage of principles and techniques learned. This program would appear of college level quality in that it has been requested by several colleges as well as several foreign countries.

Corning Glass and Ford employees that participate in the Teleometrics Models for Management Program have not received college credit to date. However, this program is offered in some settings for college credit where it incorporates grading and objective examination. Elements of Models for Management was developed as a course on organizational behavior for graduate students attending the University of Texas Graduate School of Business.



Some employees that participated in the Kepner-Tregoe course in Problem and Decision Analysis have received college credit for learning which occurred as a result of this experience. Objective examinations are utilized in situations where some form of credit is being granted. Credit has not been granted in Michigan to Parke, Davis personnel who participated in Problem and Decision Analysis.

Unfortunately, Some of the materials pertinent to the Parke, Davis-American Management course were lost while being evaluated by faculty. However, this course appears to be highly developed utilizes objective examinations, and to the writer's recollection is offered in some settings for college credit, but not in Michigan.

Sixty-eight percent of the respondents to this study indicated that the course in consideration had some form of formal evaluation. Of this total, 26% indicated utilization of objective examinations, 26% utilized some form of report, and 32% indicated that they made use of some "other" procedure, which might include the survey, reaction feedback, performance of the unit, etc. In general, the various company officials indicated that their most revealing form of evaluation is that of formal evaluation of the employee in his performance of duties upon completion of a particular educational program. It is the employee's ability to apply what he has learned that represents the real "payoff."

## Characteristics of Instructor

In many instances the qualifications of instructors in educational programs in business and industry are on a par with those of professors in our colleges and universities. This would be especially true in those programs or courses identified as being more sophisticated or complex. Better than 26% of the instructors of courses included in this study have participated in graduate work beyond the baccalaureate. Many of these persons are holders of the Ph.D. or are currently engaged in study leading to the Ph.D. In 52% of the cases, the instructor has earned at least the baccalaureate degree. (See Table VIII.) Almost invariably, it was required that all instructors in educational programs in business and industry have special qualifications and extensive experience in the area of concern. This was especially the case for persons with less than the college degree, but also true for holders of the Ph.D. Such special qualifications might include years of experience in functional areas of quality, cost, labor relations, work standards, production control, medical requirements, personnel, etc. as required of instructors in the Chrysler Foremen Induction Training Program, and certification by Scientifics Methods of instructors that teach the Parke, Davis course entitled The Managerial Grid.

TABLE VIII: CHARACTERISTICS OF INSTRUCTOR

<u>Educational Attainment</u>	<u>% of Instructors</u>
Graduate work beyond baccalaureate	26%
Baccalaureate degree	52%
High school diploma	19%
Less than high school diploma	3%
Other	45%

## Benefits to Employees

In order to get ahead in this highly competitive society of ours, it is essential to keep abreast both educationally and in technical know how. This is certainly true in highly competitive areas such as business and industry. Although participation in some training programs or courses are required of some employees as a condition of employment, the study of educational programs in business and industry revealed that the majority of programs are offered on what is technically a voluntary basis. The point is that participation in a particular program may be necessary for upward mobility, but the choice remains the employee's. Programs become more selective as they relate to areas of higher prestige within the company. Employees that successfully participate in educational programs in business and industry generally receive personal benefits. This provides a motivation often notably absent on the campus.

The present study reveals that without exception, there are no direct expenses incurred by employees for participation in educational programs made available in Michigan business and industry. In 45% of the cases considered, employees received released time from their jobs in order to participate in educational programs, while 48% of such employees maintained regular work schedules and attended classes after work. The primary benefit accrued by employees as a result of participation in educational programs is improved opportunity for promotion or advancement.

This benefit was indicated as being available to employee/students in 61% of the programs studied. There was no opportunity for advancement or promotion related to 35% of the courses. An assured salary increase and promotion was reported as present in 3.8% of the cases. (See Table IX.)

#### Benefits to Company

Business and industry exists for the purpose of earning profits. Therefore, it would be absurd to assume that companies offered educational programs to employees strictly out of humanitarian concerns. The company assumes that these offerings will in the long run increase productivity and earnings. Improved employee satisfaction was indicated as a primary company benefit derived through offering a particular educational program. Other benefits in order of the frequency in which they were indicated include: increased worker productivity; improved company-employee relationship; and improved image of the company.

Without exception, officials of companies involved in this study feel that at least parts of the programs included are worthy of being considered for credit at the college level. They also asserted that programs were successful in meeting present objectives. Undoubtedly, if they decided otherwise about certain programs, such programs would be altered or discarded. Thirty-nine percent of the programs included in the study are expected to increase in size.

TABLE IX: OPPORTUNITY FOR ADVANCEMENT

<u>Opportunity</u>	<u>% Responding</u>
Improved opportunity for advancement or promotion	61%
Assured salary increases	3%
Assured advancement or promotion	3%
No opportunity for advancement or promotion	35%

TABLE X: BENEFITS TO THE COMPANY

<u>Benefit</u>	<u>% Responding</u>
Increased worker productivity	55%
Improved employee satisfaction	68%
Improved company-employee relationship	60%
Improved company image	48%
Other	12%

## Summary

Michigan business and industry makes available to its employees a wide range of educational programs varying in nature and complexity. Such programs are offered in areas of in-service training, job upgrading, adult basic education, and adult continuing education. The majority of courses are offered for purposes of in-service training and job upgrading. These functions are regarded as essential to the company's continuance and growth. The primary incentive encouraging the participation of employees in educational programs is improvement of their opportunities for advancement or promotion.

Education is obviously a large operation on the part of many industries. The investment in terms of employee released time alone would be sizable. In 45% of the cases studied companies provided released time to employees in order to facilitate their participation in various learning experiences. Additional costs are represented in the form of costs for instructors, consultants, materials, and in some instances, facilities. The study indicated that employees did not bear any direct costs for instruction. Business and industry, being primarily a profit earning concern, expects a significant return on investments for educational purposes. Consequently, the objectives of each course are clearly spelled out and implemented. The planning and evaluation of programs occurs on a careful and continuous basis. Feedback as to program success is constantly sought by company officials.



Several concerns on the part of faculty working in traditional college settings pertinent to the possibility of awarding academic credit for developmental experiences have been identified. Three of these concerns that pertain to the study of educational programs in business and industry are: (1) the standards for successful completion of courses; (2) the existence or lack of existence of formal evaluation of students; and (3) the characteristics or qualifications of instructors.

This study reveals that courses in business and industry are patterned quite closely to those at the college level as regards the types of class components and materials utilized. The more complex courses in the industrial setting utilize texts that are presently being studied in college courses, as well as texts, cases, and other printed matter that instructors believe are appropriate for use in college courses. Regular attendance and the completion of specified tasks are most often the standards for successful completion of courses.

Most of the courses offered by business and industry are presented in a non-threatening atmosphere of mutual trust. As such, grading seldom occurs. The evaluation of students is primarily conducted through objective examinations and reports. The lack of grading, however, does not necessarily complicate the process of considering the appropriateness of awarding academic credit for developmental experiences. Such consideration should be accorded to the extent that one can demonstrate appropriate learning that has taken place.

Many instructors in the educational programs provided to employees by Michigan industry have credentials comparable to those of college professors. Data collected reveal that in some 31 courses considered, 27% of the instructors have participated in graduate work beyond the baccalaureate. Many either hold the Ph.D. or are currently engaged in study leading to the Ph.D. Fifty-two percent of the instructors hold at least the baccalaureate degree. In all instances, instructors in the educational programs in business and industry are required to have extensive experience and, in some instances, special training in the appropriate area in order to qualify for a specific assignment. This requirement even holds true for those who have earned the Ph.D.

Without exception, company officials felt that the programs or courses here considered are successful in meeting their objectives. The primary basis for such an evaluation is the observance of on-the-job application of principles learned. Other sources of data for judgment include periodic and random surveys, and written and oral evaluations by students and instructors. Employees generally have not received college credit for their job related learning experiences. Nevertheless, company officials believe that at least parts of the courses included in this study are worthy of being considered for college credit. The following chapter will explore to what extent Michigan State University faculty members concur with this opinion.

## CHAPTER IV

## FACULTY PROCEDURES AND CONCLUSIONS

As indicated in the description of the study, respondents completed a two-part questionnaire and submitted for review instructional materials pertinent to their educational programs. These materials were in turn submitted to Michigan State University faculty for their review and consideration as to the degree of relevancy to present university offerings. Three faculty members from each appropriate department were asked to participate in the study of educational programs in business and industry. The procedure for selection was as follows: each appropriate department chairman was contacted and asked to participate in the study; the chairmen were asked to recommend other individuals who might be interested in this type of development and that was capable of making a significant contribution to the study. Persons suggested were contacted in a random manner until three consenting parties in each appropriate department were identified. Generally, the first three persons consented and additional inquiries were unnecessary. Personal visits were made to the majority of faculty participants for the purposes of providing the background that lead to the conceptualization of the study, and to identify procedures to be followed. Written correspondences were also mailed to each faculty participant in order to formalize the proceedings. The materials submitted for evaluation were delivered to the

appropriate parties throughout the month of February. This fifth or evaluative phase of the study was 95% completed by April 30. A list of the Michigan State faculty members who participated in the study, and materials utilized in this phase of the study are presented in Appendix C.

There were some 31 courses included in the present study. However, for evaluative purposes the total is considered as numbering 30. The Simplicity Pattern courses in Supervisory Development I and II were evaluated as one course. Faculty were asked to evaluate materials from the following perspectives or points of inquiry:

1. Does the program or course overlap present university offerings?
2. If so, is such overlap at a sufficient level to consider awarding college credit to a participant who can demonstrate that he successfully mastered the subject:
3. If there is no overlap, is this offering still at a level worthy of consideration for college credit?
4. If this course or program is at a sufficient level, how much credit should be awarded to an applicant able to demonstrate his mastery of the subject content?
5. Indication of the appropriate procedure for determining the applicability of awarding credit.

6. Comments upon concerns and suggestions of desirable actions in moving toward recognition of such learning by granting college credit.

In considering the possibility of awarding academic credit for learning attained outside of the traditional educational setting, it is assumed that the outcome of such learning must be clearly related to the outcomes of learning presently taking place in the college setting. Therefore, the first concern in initiating such a process would be to ascertain whether the learnings acquired through developmental experiences overlapped present university offerings. Faculty were asked to evaluate the educational programs sponsored by business and industry from this perspective. The appropriate item in the evaluation form is stated as follows:

1. Does this program or course overlap present university offerings?

In the opinion of at least one of three professors that evaluated a particular course, 90% of the courses included in this study had some degree of overlap with present university offerings.

If a non-traditional learning experience is found to overlap with present university offerings, the next obvious question is whether there exists sufficient overlap to consider the awarding of academic credit to one able to successfully demonstrate learning so acquired. The second item in the evaluation instrument was worded as follows:

2. If so, is such overlap at a sufficient level to consider awarding college credit to a participant who can demonstrate that he successfully mastered the subject?

Sixty-five percent of the courses evaluated were judged to have a sufficient degree of overlap to consider awarding college credit where appropriate.

It is possible that varied organizations not formally established for educational purposes are engaged in educational activities that do not overlap with present university offerings, but nevertheless are offered at a level of complexity equivalent to college courses. The third evaluation item was designed to ascertain the degree of existence of this phenomenon in courses considered, and is stated in the following manner:

3. If there is no overlap, is this offering still at a level worthy of consideration for college credit?

The present study evidenced no incidence of courses that did not overlap with present university offerings, but were worthy of consideration for academic credit.

Paramount to the issue of awarding academic credit for developmental experiences is the decision as to what amount of credit should be awarded to a student who is able to successfully demonstrate learning that has occurred. Item four in the evaluation is addressed to this concern and appears as follows:

4. If this course or program is at a sufficient level, how much credit should be awarded to an applicant able to demonstrate his mastery of the subject content?

The potential amount of college credit was indicated for 53% of the courses included in this study. Appropriate credit varied from one to four term credits. Those courses that were previously identified as being complex generally received the larger amounts of credit. Table XI presents the evaluation data discussed to this point.

A variety of procedures for evaluating developmental experiences in terms of academic credit are presently utilized by external degree programs. However, if the external degree is to represent a viable alternative for American higher education, some standardization of this process must occur. Subsequently, item five of the evaluation instrument was designed to ascertain to what degree faculty supported existing procedures as being appropriate for awarding credit for developmental experiences. Item five is worded in the following manner:

5. Indicate the appropriate procedures for determining the applicability of awarding credit.

As might be expected, the majority of responses favored departmental examinations as the appropriate procedure for determining the applicability of awarding college credit for developmental experiences.

TABLE XI: COURSE EVALUATIONS

<u>Evaluation</u>	<u>Percentages</u>
Overlap present college offerings	90%
Overlap sufficient to consider for college credit	65%
Amount of credit indicated	53%
No overlap, worthy of credit	0%



Standardized tests were next in preference followed by counselor and/or faculty oral evaluations. Other choices in the order of preference include a combination of counselor and/or faculty oral evaluation and department examinations; standardized tests results combined with departmental examinations; a combination of counselor and/or faculty oral evaluation, standardized tests, and departmental examinations; and a combination of counselor and/or faculty oral evaluation combined with standardized tests. None of the respondents indicated a need for additional procedures for the evaluation of developmental experiences. (See Table XII).

Any serious attempt to develop educational programs that merit academic credence must consider in its design and implementation the concerns of those most directly responsible for the development and maintenance of academic standards. There exists no exception to this rule when one considers the potential viability of external degree or non-traditional programs. Therefore, the present study attempted to determine the concerns and cautions envisioned by faculty in moving toward such a development. The sixth and final item included in the evaluation of educational programs in business and industry reads:

6. Comment upon concerns and suggestions of  
desirable actions in moving toward recognition  
of such learning by granting college credit.

Faculty members expressed several concerns in moving to a system that awards academic credit to one able to successfully demonstrate

APPROPRIATE PROCEDURE FOR DETERMINING  
TABLE XII: APPLICABILITY OF AWARDED CREDIT

<u>Procedure</u>	<u>% Responding</u>
A. Counselor and/or faculty evaluation	27%
B. Standardized test results	33%
C. Department examinations	47%
D. Combination of A and B	2%
E. Combination of A and C	22%
F. Combination of B and C	14%
G. Combination of A, B, and C	8%

his mastery of learning via life experiences. Concerns most frequently expressed include:

1. Lack of uniformity in the capability of students in courses outside of the traditional educational structure
2. Topics are taught at different levels and degrees of generality
3. Overlap with present university offerings is not a true overlap
4. Lack of meaningful prerequisites to establish the level of a course
5. Courses are sometimes not sufficiently broad in scope and generalize in subject matter to serve as a foundation course, nor sufficiently deep in one area to represent an advanced terminal course
6. Instructional materials are not exactly comparable to those utilized in college courses
7. Vagueness as to what is required of students
8. The university should maintain a distinction between credit and non-credit courses
9. Lack information as to the number of sessions and time spent in instruction
10. Lack of formal evaluation and grading
11. Courses in business and industry are frequently oriented to problem solving for which participants have not been adequately prepared

12. Subject matter sometimes is learned within a concentrated period of five days
13. Faculty should review the materials and evaluate the capabilities of instructors
14. Each course should be evaluated by the college department offering an equivalent course

The cautions expressed by faculty obviously represent a genuine concern for academic credibility. Emphasis appears to be placed upon a concern for process and environment rather than accomplishment. Implicit, is a need for clarification of the objectives of external degree programs. Most of the concerns expressed by faculty could be addressed through such a process. Of prime importance is the fact that the applicability of awarding credit for developmental experiences will be determined by the student's ability to successfully demonstrate appropriate learning via a particular course and that it is not necessary to recognize or evaluate the course per se.

### Summary

Materials pertinent to some 30 courses offered to employees by Michigan business and industry were presented for faculty evaluation. Three faculty members from each appropriate department participated in the study. It was concluded by faculty that 90% of the courses presented for evaluation had some degree of overlap with present university offerings. However, the percentage declined to 65% when viewed from the perspective of a sufficient degree of overlap to consider the awarding of college credit to an individual who is able to successfully demonstrate learning so acquired. Faculty also found that there was no incidence of courses which did not overlap with present university offerings, but were structured at a sufficient level to consider for academic credit. The amount of credit that would be potentially appropriate for the successful demonstration of learning of subject matter was also indicated for 53% of the courses studied. Credits varied from one to four term credits.

Especially essential to the institutional point of view in considering the awarding of credit for developmental experiences is designation of the appropriate procedure for determining the applicability of such a process on an individual basis. Faculty overwhelmingly felt that the applicability of awarding college credit for developmental experiences should be contingent upon successful completion of appropriate departmental examinations. Standardized tests were expressed as the second order of preference.

Of course, developments that run counter to the traditional ways of doing things are viewed with apprehension and skepticism. It is therefore desirable to ascertain the cautions and concerns of experts in moving in new directions. The present study attempted to ascertain the concerns and cautions that faculty felt should be observed in moving toward the recognition of learning, however derived. Cautions expressed represented a concern for traditional academic standards, but evidenced a failure to adequately conceptualize the external degree philosophy. For if learning is the ultimate end, the assessment of such learning is not contingent upon the amount of time spent in the instructional process, but upon evidence of comprehension of essential concepts. A lack of total overlap with existing curricula would be compensated in individualized program planning. The faculty evaluation component in the Study of Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree contains some interesting implications for future planning. These implications will be discussed in the concluding chapter of this study.

## CHAPTER V

## CONCLUSIONS AND RECOMMENDATIONS

The study of "Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree" evolved out of an interest in the current and future status of higher education in America. The current status of higher education can be characterized as critical. American colleges and universities are experiencing decreases in enrollments, financial stringencies, and massive public attacks calling for relevancy, changes in professional tenure policies, and equality of access for all groups.

The future appears to represent a further decrease in enrollments, but competition for scarce resources will be keen. Attacks upon teacher tenure, academic relevancy, and admission procedures will continue and possibly intensify. It is expected that the student body will continue to increase in diversity and mobility, entering and exiting from the academic mainstream at varying points in time. The result of this process will be a more mature student body that will participate in the undergraduate program often into middle age. Life long education will emerge as the standard educational concept. This constituency will not be receptive to a college<sup>1</sup> education as it is presently conceived. They will demand educational

---

1

Christ-Janer, Arland, CEEB Seeks "Non-Traditional" Alternatives for Education, College and University Business, October, 1971

alternatives that are consistent with emerging life styles. Higher education must become more individualized and personal rather than impersonal and mass oriented.

In an attempt to adjust to changing demands, the higher education enterprise is considering alternative forms of education. One such concept that is rapidly gaining favor in the U. S. is the external degree. Some external degree programs are patterned after the British Open University. The Great Britain Open University was established in January, 1971. Its objectives is to offer quality degree programs to a clientele far larger and more diverse than any traditional university would accommodate. This would be accomplished through a unique blend of innovative techniques including television, radio, correspondence study, independent study, local study centers, etc. There are no formal entrance requirements. Anyone 21 years or older who lives in Great Britain may enroll.

Numerous external degree programs are presently in operation in America, and more are being planned. An integral part of most is provision for the possibility of awarding academic credit for life experiences. Theoretically, credit is awarded only for such learning that will directly contribute to the student's attainment of some broader educational objective. Decisions as to the applicability of awarding credit for life experiences are currently being made by objective and subjective procedures. Subjective evaluations follow no standard procedures and vary with location and individuals. This inconsistency in the subjective evaluation of life experiences poses a threat to the viability of the external degree.



2

Critics are extremely scornful of these procedures.<sup>2</sup> Presently, little is known as to what types of experiences merit consideration for the awarding of academic credit to the successful demonstrator of learning so acquired. Knowledge must be gained as to the potential of various life experiences for achieving competencies worthy of college credit, and standards and procedures developed for the evaluation of appropriate learning that transpired. In that many adults acquire much of their developmental learning in work-related activities, and business and industry is the largest employer of the American adult, the present study was designed to acquire insight as to the patterns of learning experiences that are available to employees in such settings, and to evaluate these experiences in terms of their equivalency to learning at the college level. Michigan corporations employing 5,000 or more employees were asked to participate in the study. Participants completed a two-part questionnaire and submitted instructional materials for evaluation purposes. Selected faculty members of Michigan State University evaluated these materials as to the implications for receiving academic credit for learning so acquired. Eleven companies and four consulting firms participated through the final phase of the study. Thirty-one courses were submitted for consideration. For evaluation purposes, the two Simplicity Pattern courses were considered as one resulting in a faculty evaluation of thirty courses.

—

in

in

in

in

in

in

in

in

in

in

in

in

in

in

in

in

in

in

Faculty evaluations failed to reject the hypothesis that there presently exists in business and industry education programs for employees that provide academic experiences equivalent to that offered in the baccalaureate college setting. Ninety percent of the courses considered were judged to overlap present university offerings. When evaluated as to whether this overlap was sufficient to consider the awarding of academic credit to one able to successfully demonstrate learning so obtained, 65% of the courses qualified.

It is concluded that a significant degree of overlap does exist between many course offerings in the industrial community and those within our colleges and universities, and that much of this overlap exists at a level sufficient for the awarding of academic credit to one able to successfully demonstrate learning so acquired.

#### Cautions

The most obvious caution that should be observed in developing external degree programs is that such plans should originate from a careful process of need analysis, and be cautiously implemented. Such programs should be based on educational objectives that will facilitate planning of learning experiences that are equivalent or superior to those at traditional colleges and universities.

Faculty participants in the study of educational programs in business and industry indicated a number of concerns in moving toward the external degree and the awarding of academic credit for

appropriate developmental experiences. Concerns generally expressed include:

1. That non-traditional educational settings should utilize a standard grading system to facilitate the evaluation of such learning for academic credit. No formal evaluation is provided in many of such programs.
2. Faculty members should evaluate the educational programs in non-traditional settings for which academic credit is to be sought.
3. Faculty members should be able to evaluate the competency of instructors in non-traditional settings.
4. The degree of overlap is not a true overlap with university offerings.

It appears that the concerns expressed above emphasize process rather than the amount of learning that has taken place. If the student has attained creditable goals, instructor competency is either irrelevant or obvious depending on whether the instruction was really instrumental in the student's achievement. Since the objective of education is learning, it is necessary that we develop appropriate techniques for measuring learning however acquired. Objective techniques utilized do offer a standard format for such decisions. What is now needed is clarification of learning goals and some degree of standardization in more flexible appraisal processes. The majority of faculty believe that such decisions should be made via departmental examinations. The lack of total

overlap of experiences with present college offerings might be alleviated through individualized programs. But it should be recognized that few students in a campus course achieve anywhere near mastery of all materials covered.

#### Recommendations

The findings of this study indicate that there are numerous course offerings in the industrial setting that overlap to a significant degree with present college courses. Sixty-five percent of the faculty participants were of this opinion. This is especially revealing in that faculty members of Michigan State (like those at other universities) tend to be traditional in their views, and expressed apprehension toward the external degree concept. These findings indicate that there exists enough similarity in objectives to consider the awarding of college credit to one able to successfully demonstrate learning via developmental experiences in business and industry. The preferred faculty procedure for deciding the appropriateness of awarding credit is the departmental examination, most probably supported by the oral examination or interview. But such judgments would be highly subjective and somewhat prejudiced against giving credit. Better and more objective basis for awarding academic credit are needed.

It is recommended that national standards and procedures be developed for the awarding of academic credit toward the external degree. In doing such, a national inventory should be made of the kinds of experiences that seem appropriate, and in what settings and under what conditions. This process would not hinder the

flexibility of experiences essential to the external degree doctrine, but would facilitate academic credence. Many academicians are rightfully concerned over degree programs that award credit for the vaguest of experiences that lack specific relationship to program objectives.

A number of alternatives exist for attaining the above objective. One such alternative would be to have this assignment assumed by a national educational agency with the proper expertise. The American Council on Education has under its aegis a Commission on Accreditation of Service Experiences. It would appear that the Commission would have the expertise to undertake the evaluation of life experiences for college credit. The Commission's director recently indicated to the author that consideration is presently being given for such an activity.

The Union for Experimenting Colleges and Universities presently sponsors a University Without Walls Program that includes 20 institutions from around the nation. This organization should also possess the necessary expertise to develop a national plan for the evaluation of life experiences. Of course, an alternative to an existing organization for such an assignment would be the creation of a new one, or of a commission such as the Carnegie Commission on Higher Education. Short of a national effort, and possibly interim to it, would be efforts toward the establishment of standards for the evaluation of life experiences at the regional and state levels.

Findings as to the extensive overlap of educational courses in business and industry with college level courses offer some interesting prospects for the future delivery of higher education services, and specifically the external degree. A frequent criticism of higher education as it is presently structured is that it does not adequately prepare students for employment. This claim is widely made in the many business related professions.

There exists a two-part dilemma to this issue:

1. Educators do not assess the needs of business as a continuous aspect of program planning
2. Course offerings are frequently too theoretical and void of practical orientation

The results of a recent survey of executives of 450 top American corporations presented in the latest Gallagher President's Report indicate that the majority believe that colleges and universities are falling down on the job of teaching today's youth.<sup>3</sup> However, the similarities found in this study between course objectives in business and those in our colleges and universities, along with the enthusiasm for the external degree concept generated by company officials indicate that the forces of education and business might develop more harmonious and mutually gratifying relationships. Edison College of New Jersey exemplifies the type of external degree arrangement that might prove mutually beneficial.

The college, with the input of leaders in the business community, has developed an Associate Management Degree Program. In this arrangement, many of the course requirements are being met within the company with the utilization of adjunct professors. This enables the student to apply the theories of course work to the realities of the job. The result is a better prepared student and employee. Edison College is currently developing a Bachelor's Degree in Management Program that will be based upon this principle.

Another implication for the external degree is contingent upon joint planning between educators and employers of the life experiences with educational implications to be made available to employees. Employers concerned with providing the external degree option to employees might plan with institutions offering such a program the kinds of educational experiences that would enable successful employee-learners to subsequently apply for academic credit. The final decision for awarding credit would be, of course, dependent upon the student's ability to successfully demonstrate appropriate knowledge, although it would be desirable to have national standards for so doing.

The findings mentioned also hold implications for the more traditional degree structure, but possibly with the emergence of a new degree concept. For the sake of "education for employability", it appears desirable to develop a degree program that would offer as a component certification of the student by the company within which he has been placed for practical experiences.



Such a program would necessitate joint planning by the college and leaders in business and industry, but would lead to the development of a more highly qualified individual. It could be provided on an optional basis, and possibly recommended to students who are currently employed, or who seek immediate employment upon graduation.

In conclusion, the findings in the study of "Educational Programs in Business and Industry and Implications for Receiving Credit Toward the External Degree" indicate that many of the courses provided to employees by business and industry overlap considerably with offerings in our colleges and universities. It is further indicated that departmental examinations could now be utilized to decide the appropriateness of awarding academic credit for developmental experiences. New and more fruitful arrangements for acquiring educational objectives are needed and may be imminent. The external degree does represent a potentially viable alternative for higher education in America.

## BIBLIOGRAPHY

## BIBLIOGRAPHY

- American Association for the Advancement of Science, Science Education News, April 1, 1972.
- Berls, Robert H. "Higher Education Opportunity and Achievement in the United States," The Economics and Financing of Higher Education in the United States, (Washington, D.C.: U. S. Government Printing Office, 1969), p. 150.
- Botton, Roger E., "The Economics and Public Financing of Higher Education: An Overview," The Economics and Financing of Higher Education in the United States, (Washington, D.C.: U. S. Government Printing Office, 1969), pp. 62-63.
- Boyer, Earnest L., and Keller, George C., "The Big Move to Non-Campus Colleges," Saturday Review, July 17, 1971, pp. 46-49.
- The Carnegie Commission on Higher Education, New Students and New Places, McGraw-Hill Book Company, New Jersey, 1971, pp. 1-4.
- The Carnegie Commission on Higher Education, New Students and New Places, October, 1971, McGraw-Hill Book Company, New Jersey, pp. 1-12.
- The Carnegie Commission on Higher Education, 1968, 1970, Sewell, William H., Inequality of Opportunity for Higher Education, (vol. 36, October), p. 805.
- The Carnegie Commission on Higher Education, New Students and New Places, McGraw-Hill Book Company, New Jersey, October, 1971, p. 6.
- Central Michigan University, "Institute for Personal and Career Development," Institute for Personal and Career Development, 1972.
- Chicago Tribune, Business Execs Say Undergrads Undereducated, Presented in Detroit Free Press, 6-25-73, (10C).
- Christ-Janer, James Arland F., "Non-Traditional Educational Concepts, The Board's Role in Change," College Board Review, no. 85, Fall, 1972, p. 2.
- College Entrance Examination Board, "The Facts About CLEP", College Board Review, Fall, 1971, no. 81, p. 19.

- The College-Level Examination Program in Action, "College Board Review," College Entrance Examination Board, Fall, 1971, no. 81, p. 17.
- Cremlin, Lawrence A., "Curriculum-Making in the United States," Teachers College Record, (vol. 73, no. 2, December, 1971), p. 207.
- Decker, Walker F., and Kirst, Michael W., "An Analysis of Curriculum Policy-Making," Review of Educational Research, (vol. 43, no. 5, December, 1971), p. 482.
- Ehrich, Thomas Lindley, "Off-Campus University," The Wall Street Journal, February 2, 1971.
- Eurich, Nell and Schwenkmeyer, Barry, Great Britain's Open University: First Chance, or Last Chance?, Academy for Educational Development, Inc., August, 1971.
- Gould, Samuel B., and Cross, K. Patricia, Explorations in Non-Traditional Study, Jossey-Bass, Inc., 1972, p. 99.
- Lane, Hugh W., "Admission Procedures in Transition: Some Inter-Relations," IRCD Bulletin, Horace Mann-Lincoln Institute Teachers College, Columbia University, New York, (vol. V, No. 5, Winter, 1969), p. 3.
- Lee, Eugene C., and Bowen, Frank M., The Carnegie Commission on Higher Education, McGraw-Hill Book Company, 1971, pp. 449-451.
- McKeny, Dean E., Institutions of Higher Education in the U. S. A., Some Recent Developments, Niblett, W. R., Editor, Higher Education: Demand and Response, Jossey-Bass, Inc., 1970, p. 128.
- Semas, Philip W., "Open University Programs Gain Favor in the U.S.," The Chronicle of Higher Education, (vol. VI, no. 10, November 29, 1971).
- Valley, John R., Increasing the Options, Office of New Degree Programs, Educational Testing Service, 1972, p. 2.
- Ward, F. Champion, University Initiative in Response to Change, Niblett, W. R., Editor, Higher Education: Demand and Response, Jossey-Bass, Inc., 1970, p. 160.

APPENDIX A  
MATERIALS INCLUDED IN FIRST MAILING

---

OFFICE OF INSTITUTIONAL RESEARCH  
331 JOHN A. HANNAH ADMINISTRATION BUILDING

Dear

Michigan business and industry makes significant contributions to the educational development of its employees through the offering of training programs, basic education programs, marketing institutes, professional seminars, and the like.

A recent development in higher education, external degree programs, offers an opportunity for adults to receive college credit for educational experience relevant to a degree. This creates a possible new dimension for education received through business and industry. Although external degree programs are not presently offered on a wide scale in the state of Michigan, many states are moving in this direction. Such a program is already existent at Central Michigan University.

In light of this recent development and its possible implications, the Office of Institutional Research at Michigan State University would appreciate your participation in an important study. If college credit for experiences received outside of the formal educational setting is to represent a viable alternative for our citizens, an understanding of the nature of such experiences is needed. Therefore, I ask that you cooperate with us in a study of any educational programs which may be offered to your employees.

Mr. Arthur Anderson, a Ph.D. candidate at this institution, will be working with me in this effort in fulfillment of his requirements for the dissertation. This study will involve a minimum of your time and all findings will be treated in the most professional and confidential manner. Involved would be the completion of a questionnaire along with possible interviews with the program director, instructor, and a small sample of participants.

You will find attached an outline of the information we desire as well as a form indicating your willingness to cooperate. We recognize that parts of the outline will not apply to some programs. Mr. Anderson and I are eager to begin this project and would appreciate your response at the earliest convenience. Thank you in advance for your cooperation.

Sincerely yours,

Paul L. Dressel  
Assistant Provost and  
Director of Institutional Research

Office of Institutional Research  
331 John A. Hannah Administration Bldg.  
Michigan State University  
Paul L. Dressel, Assistant Provost for  
Institutional Research

A Study of Educational Programs in Business  
and Industry and Implications for Receiving  
Credit Towards the External Degree

Numerous institutions of higher education in America are exploring new ways of providing education in a more flexible fashion than continuous residency on a college campus. Developments in this regard include programs to facilitate education as a life long process and the external degree. As you know, Michigan State University is presently convening a task force on education as a life long process. The university is not currently exploring the external degree concept, but the rapid rise of such programs throughout the nation deems it worthy of our consideration. External degree programs generally provide for the possibility of awarding college credit to individuals whose life long or developmental experiences contribute to their course of study. The method of evaluating the relevancy of such experience includes various forms of examination; the College Level Equivalency Examination is frequently utilized, and counselor, faculty, and review board evaluations. Many individuals acquire developmental experience relative to their employment. Therefore, the present study is designed to study educational programs in business and industry and formulate opinions as to whether there is evidence that a student who performs well in such courses might possibly be given college credit, either equivalent to some course or just as a general amount of credit based on level of education.

You will find attached certain materials aimed at providing insight into various programs offered in business and industry. Each course will be preceded by an introductory statement. As a participant in this study, you are asked to review all materials presented and respond to the accompanying questionnaire. These materials are by no means comprehensive, but you are requested to make

tentative judgments based upon obvious limitations. Again, there is no immediate intent to raise any question about recognizing any program or granting credit to any individual. At this point we are simply attempting to access the nature of programs and determine whether there is sufficient relationship to explore the matter further at some later date.

Thank you for your cooperation in this project.



Outline for a Study of Educational Programs  
Offered by Michigan Business and Industry

- I. Nature of the program
  - A. In-service training
  - B. Job upgrading
  - C. Adult or continuing education
  - D. Other
- II. Program objectives
  - A. General objective
  - B. Specific objective
  - C. Educational goals or competencies to be achieved
- III. Program or courses of study
  - A. The nature of each course
  - B. Objectives of each course
  - C. Materials to be utilized
  - D. Procedures for evaluation
  - E. Standards and possible levels of attainment
- IV. Characteristics of the student body
  - A. Educational background
  - B. Employment level
- V. Characteristics of instructor
  - A. Educational background
  - B. Employment
- VI. Participation
  - A. Number of employees enrolled in a program for fiscal 1970-71
  - B. Number successfully completing program
- VII. Benefits to employee
  - A. Terms of employment during instruction
  - B. Cost of program to employee
  - C. Opportunities for advancement as a result of program involvement
  - D. Receipt of college credit
- VIII. Attitude of company
  - A. Company evaluation
  - B. Benefits to company
- IX. Investment by company
  - A. Equipment utilized and approximate cost
  - B. Cost to company for each student
  - C. Total cost of program

Statement of Willingness to Participate in  
Study of Educational Programs in Business and Industry

Name of Company \_\_\_\_\_

We will participate in the study ( )

We will not participate in the study ( )

We have no such programs ( )

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Person with whom further contacts are to be made if different from above:

Name \_\_\_\_\_

Title \_\_\_\_\_

-----  
Please return to:

Paul L. Dressel  
Assistant Provost and  
Director of Institutional Research  
331 John A. Hannah Administration Bldg.  
Michigan State University  
East Lansing, Michigan 48823

APPENDIX B  
MATERIALS INCLUDED IN JULY MAILING

MICHIGAN STATE UNIVERSITY - East Lansing, Michigan 48823  
Office of Institutional Research  
331 John A. Hannah Administration Building

July 19, 1972

We wish to thank you for your participation in the study of educational programs in business and industry and their implication for the external degree. You will find enclosed a questionnaire to be completed in conjunction with the study. The questionnaire is divided into two parts. Part I includes items descriptive of each program. Therefore, a Part I should be completed for each program under consideration. Part II pertains to the courses of study within each program. Thus, a Part II should be completed for each course within a particular program. We are aware that you might not be able to supply information for every item listed. However, we would like your response to as many items as possible. It would be appreciated if you would forward along with your completed questionnaire any available materials describing your programs and courses of study. You will note that the questionnaire requests samples of course materials utilized.

Again, all information will be treated as confidential and findings will be reported in summary fashion only. Upon completion of your questionnaire, please return it to Paul L. Dressel, Director of Institutional Research, Michigan State University, East Lansing, Michigan, 48823. Hopefully, all materials will be returned by August 18, or at your earliest convenience. If you have any questions, please phone the Office of Institutional Research at 517 - 355-6629.

We will share with you a report on our findings and recommendations.

Sincerely,

*Paul L. Dressel*  
Paul L. Dressel

*Arthur W. Anderson*  
Arthur W. Anderson

Office of Institutional Research  
Michigan State University  
East Lansing, Michigan 48823  
517 - 355-6629

Instruction Sheet for Questionnaire on  
Educational Programs in Business and Industry

The External Degree

The present demand for higher education in America is overwhelming. This demand is expected to increase in the future to a possible enrollment of nine million persons by 1980. Such a demand naturally entails problems of space and finance. Today's classrooms are already overfilled. In an effort to meet its responsibilities to society, higher education in America is seeking alternatives to the traditional college education. One such alternative is the external degree. Several external degree programs are presently in operation in the United States and many more appear on the horizon.

External degree programs seek to provide a quality education while minimizing the amount of time a student spends in the traditional college setting. This is achieved through an imaginative blend of educational techniques such as television, radio, correspondence instruction, seminars, independent study, and local study centers. The potential for serving greater numbers of students through such techniques is apparent.

Generally incorporated into external degree programs is the philosophy that many adults, prior to college entrance, have participated in educational or developmental experiences of college level equivalency. Such experiences are derived from such sources as educational experiences obtained outside the formal educational structure, work related activities, travel, and various seminars and training programs. If institutions of higher education determine that a person's developmental experiences have contributed to his proposed course of study, there exists the possibility that the student will be awarded credit towards the external degree. Therefore, the present study is designed to obtain information concerning educational and training programs offered by business and industry, and explore the impli-



### Questionnaire

The following questionnaire is divided into two parts. Part I includes items descriptive of each program. Therefore, a Part I should be completed for each program under consideration. Part II pertains to the courses of study within each program. Thus, a Part II should be completed for each course within a particular program. The items included in the questionnaire appear in both the open ended and multiple choice form. For open ended items please write your answer as concisely and completely as possible. In the multiple choice items, more than one choice might be appropriate. Therefore, on all multiple choice items, please check each choice that is appropriate for that item.

### Choice of Programs

In selecting programs to be included in this study, we ask that you include programs that contribute to the general educational development of a person and/or his development in a particular skill area. Examples of programs of interest would include programs pertaining to aspects of engineering, business management, sales, marketing, accounting, computer programming, communicative skills, arithmetical or statistical skills, etc. Programs designed for persons already possessing a baccalaureate degree would not be of interest unless at the graduate level. If you have need of any additional information or materials, please contact Paul L. Dressel in the Office of Institutional Research. Hopefully, all materials will be returned by August 18, or at your earliest convenience.

## PART I

Office of Institutional  
Research  
Michigan State University  
East Lansing, Michigan 48823  
517 - 355-6629

Questionnaire on Educational Programs  
Offered by Business and Industry

Name of Program \_\_\_\_\_  
Name of Company \_\_\_\_\_  
Person Completing Questionnaire \_\_\_\_\_  
Position \_\_\_\_\_  
Telephone \_\_\_\_\_

Nature of the Program

1. What is the nature of the program?

- A. In-service training ☐  
(Training of persons already on the job for purposes of increased proficiency and/or job awareness.)
- B. Job upgrading ☐  
(Program to increase specific skills necessary for the performance of present tasks, or to provide an avenue for advancement.)
- C. Adult basic education ☐  
(Development of basic educational skills frequently leading to the equivalency of the high school diploma.)
- D. Adult continuing education ☐  
(Educational offerings designed to enhance the general development of the employee but not leading to a degree or certificate.)
- E. Other ☐  
Please describe: \_\_\_\_\_  
\_\_\_\_\_

Program Objectives

2. What specific skills or learning outcomes should the student evidence upon successful completion of the program?

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_
- D. \_\_\_\_\_
- E. \_\_\_\_\_



Participation

3. What was the total number of employees enrolled in the program during 1971? \_\_\_\_\_
4. What percentage successfully completed the program? \_\_\_\_\_

Benefits to Employee

5. What are the terms of employment while enrolled in the program?

A. Released time ☐

B. Regular work schedule ☐

C. Other arrangements ☐

Please explain: \_\_\_\_\_

\_\_\_\_\_

6. Expense to employee

A. Charges for materials ☐

B. Fees for instruction ☐

C. No expense ☐

7. Opportunities for advancement or promotion upon successful completion of program

A. Assured salary increase ☐

B. Assured advancement or promotion ☐

C. Improved opportunity for advancement or promotion ☐

D. No opportunity for advancement or promotion related to program ☐

8. Awarding of college credit

A. Some students have received college credit for this program ☐

B. Students have not received college credit ☐

C. Students have indirectly received college credit by passing the College Level Equivalency Examination or by some similar procedure ☐

D. At least parts of this program deserve college credit ☐

Company Attitude

## 9. Company evaluation

- A. Program is successful in attaining objectives ☐
- B. Program is not successful in attaining objectives ☐
- C. Program will increase in size ☐
- D. Program will decrease in size ☐
- E. Program will remain the same ☐

## 10. Benefits to company

- A. Increased worker productivity ☐
- B. Improved employee satisfaction ☐
- C. Improved company employee relationship ☐
- D. Improved image of company ☐
- E. Other ☐  
Please explain below:

---

---

---

---

## PART II

Office of Institutional  
Research  
Michigan State University  
East Lansing, Michigan 48823  
517 - 355-6629

Questionnaire on Educational Programs  
Offered by Business and Industry

Name of Program \_\_\_\_\_  
Name of Company \_\_\_\_\_  
Person Completing Questionnaire \_\_\_\_\_  
Position \_\_\_\_\_  
Telephone \_\_\_\_\_

Course of Study Form

Please fill out a "course of study form" for each courses offered in this program.

1. What is the title and subject matter of this course?

(1) Title \_\_\_\_\_

(2) Subject Matter \_\_\_\_\_

2. What are the specific competencies or skills to be developed?

A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

D. \_\_\_\_\_

E. \_\_\_\_\_

3. Indicate the appropriate class components.

A. Lecture ☐

D. Laboratory ☐

B. Discussion ☐

E. Case method ☐

C. Seminar ☐

F. Problem or task centered ☐

\*  
4. Types of material utilized

- A. Books ☐
- B. Films and other visual aids ☐
- C. Tapes ☐
- D. Printed material other than books ☐
- E. Equipment ☐

\*Please attach descriptions of each type of material and equipment utilized. Include titles, authors, and publishers. Where possible, please enclose samples of materials indicated.

5. Check appropriate standards for successful completion of course

- A. Regular attendance ☐
  - B. Completion of several specified tasks ☐  
If checked, please explain tasks here or on additional paper
- 
- 

6. Indicate any formal evaluation

- A. Objective (multiple-choice) examinations ☐
  - B. Essay examinations ☐
  - C. Reports ☐
  - D. Other ☐  
If checked, please explain: 

---
-

Characteristics of the Student Body

7. What number of students enrolled in this course during 1971? \_\_\_\_\_
8. Indicate the source of students enrolled in course by appropriate employment level

---

---

---

Characteristics of Instructor

9. Indicate the appropriate educational level required to teach course

- A. Less than high school diploma ☐
- B. High school diploma ☐
- C. Baccalaureate degree ☐
- D. Graduate work beyond the baccalaureate ☐
- E. Other criteria ☐
- If checked, please explain: \_\_\_\_\_

---

---

---

Please submit any additional information that you feel will contribute to the study. Did you enclose samples of materials utilized in instruction? Your cooperation in this study is greatly appreciated.

## APPENDIX C

### EVALUATION: PARTICIPANTS AND MATERIALS

## Faculty Participants

Department of:

### Electrical Engineering and Systems Science

Professor Thomas W. Culpepper  
Professor Herman E. Koenig, Chairman

### Civil and Sanitary Engineering

Professor William C. Taylor, Chairman  
Professor Robert F. McCawley  
Professor Orlando Andersland

### Mechanical Engineering

Professor Robert W. Little, Chairman  
Professor John F. Foss  
Professor C. H. Pesterfield

### Metallurgy, Mechanics, and Materials Science

Professor Robert Summitt, Acting Chairman  
Professor Gary Cloud  
Professor William Sharpe

### Chemical Engineering

Professor Myron H. Chetrick, Chairman  
Professor Martin C. Hawley  
Professor Bruce W. Wilkinson

### Computer Science

Professor H. G. Hedges, Chairman  
Professor Richard C. Dubes  
Professor Martin G. Keeney

### Accounting and Financial Administration (Financial)

Professor Gardner M. Jones, Chairman  
Professor Alan Grunewald  
Professor Alden C. Olson

Accounting and Financial Administration  
(Accounting)

Professor Alvin A. Arens  
Professor James C. Lampe  
Professor Roland F. Salmonson

Management

Professor Richard F. Gonzalez, Chairman  
Professor R. Winston Oberg  
Professor Henry L. Tosi

Marketing and Transportation Administration

Professor Donald A. Taylor, Chairman  
Professor Richard Lewis  
Professor Leo G. Erickson

Educational Psychology

Professor Maryellen McSweeney  
Professor Andrew C. Porter  
Professor William H. Schmidt



MICHIGAN STATE UNIVERSITY - East Lansing, Michigan 48823

---

OFFICE OF INSTITUTIONAL RESEARCH  
331 JOHN A. HANNAH ADMINISTRATION BUILDING

TO:

FROM: Paul L. Dressel, Assistant Provost for Institutional Research

For some time I have been interested in the development, in this country and in England, of external degrees and new ways of providing education in more flexible fashion than residence on a college campus. Some recent work which I have done with the Federation of Regional Accrediting Commissions of Higher Education indicates that a number of these new ventures are proposing to consider a wide variety of experiences and determine the validity of these in reference to courses and goals of colleges and universities. In some respects, the interests in this type of education correspond to that of the MSU task force presently engaged in study of education as a lifelong process.

It seemed to me to be appropriate at this time to take a look at the educational programs of business and industry in Michigan. After some preliminary conversations with a few persons in business and industry where numerous educational programs are provided, I asked Mr. Arthur Anderson to work with me in making contacts, collecting materials, and in attempting to determine to what extent various educational programs provided by Michigan companies might correspond to offerings in this or other universities. As you might expect, we have found that most of the courses that might possibly fulfill this pattern are in the areas of business or engineering. I would be most appreciative if you would be willing to examine course materials which appear closely related to your special interests and report to us whether you find in them evidence that a student who performed well in such a course might possibly be given college credit either equivalent to some course or just as a general amount of credit based on level of education.

If you would be interested and willing to do this, I will have Mr. Anderson get in touch with you. I think the chore will not take more than an hour or at most two hours of your time, and I believe that the results may be quite informative and useful in ultimately developing a position within the University on recognition of credit taken under rather informal circumstances.

I do want you to know that there is no immediate intent to raise any question about recognizing any program or granting credit to any individual. At this point, we are simply attempting to assess the nature of programs and determine whether there is sufficient relationship to explore the matter further at some later date.

I hope you will be able to assist us with this project.

Office of Institutional Research  
331 John A. Hannah Administration Bldg.  
Michigan State University  
Paul L. Dressel, Assistant Provost for  
Institutional Research

A Study of Educational Programs in Business  
and Industry and Implications for Receiving  
Credit Towards the External Degree

Numerous institutions of higher education in America are exploring new ways of providing education in a more flexible fashion than continuous residency on a college campus. Developments in this regard include programs to facilitate education as a life long process and the external degree. As you know, Michigan State University is presently convening a task force on education as a life long process. The university is not currently exploring the external degree concept, but the rapid rise of such programs throughout the nation deems it worthy of our consideration. External degree programs generally provide for the possibility of awarding college credit to individuals whose life long or developmental experiences contribute to their course of study. The method of evaluating the relevancy of such experience includes various forms of examination; the College Level Equivalency Examination is frequently utilized, and counselor, faculty, and review board evaluations. Many individuals acquire developmental experience relative to their employment. Therefore, the present study is designed to study educational programs in business and industry and formulate opinions as to whether there is evidence that a student who performs well in such courses might possibly be given college credit, either equivalent to some course or just as a general amount of credit based on level of education.

You will find attached certain materials aimed at providing insight into various programs offered in business and industry. Each course will be preceded by an introductory statement. As a participant in this study, you are asked to review all materials presented and respond to the accompanying questionnaire. These materials are by no means comprehensive, but you are requested to make

tentative judgments based upon obvious limitations. Again, there is no immediate intent to raise any question about recognizing any program or granting credit to any individual. At this point we are simply attempting to access the nature of programs and determine whether there is sufficient relationship to explore the matter further at some later date.

Thank you for your cooperation in this project.

Office of Institutional Research  
331 John A. Hannah Administration Bldg.  
Michigan State University  
Paul L. Dressel, Assistant Provost for  
Institutional Research

## Evaluation of Education Programs in Business and Industry

**Name of Company** \_\_\_\_\_

Name of Program \_\_\_\_\_

Name of Course \_\_\_\_\_

**Person Completing Questionnaire** \_\_\_\_\_

**Position**

Department \_\_\_\_\_

- |    |  |                                 |   |
|----|--|---------------------------------|---|
| 1. | Does this program or course overlap present university offerings?  | Yes<br><input type="checkbox"/> | No<br><input checked="" type="checkbox"/> |
| 2. | If so, is such overlap at a sufficient level to consider awarding college credit to a participant who can demonstrate that he successfully mastered the subject? | Yes<br><input type="checkbox"/> | No<br><input checked="" type="checkbox"/> |
| 3. | If there is no overlap, is this offering still at a level worthy of consideration for college credit?  | Yes<br><input type="checkbox"/> | No<br><input checked="" type="checkbox"/> |
| 4. | If this course or program is at a sufficient level, how much credit should be awarded to an applicant able to demonstrate his mastery of the subject content?    |                                 |   |

5. Indicate which of the following would be an appropriate procedure for determining the applicability of awarding credit:

a. Counselor and/or faculty oral evaluation ☐

b. Standardized test results ☐

c. Department examination ☐

d. Combination of a and b ☐

e. Combination of a and c ☐

f. Combination of b and c ☐

g. Combination of a, b, and c ☐

h. Other ☐ If checked, please elaborate: \_\_\_\_\_

\_\_\_\_\_

6. Please comment freely on your concerns and suggest desirable cautions in moving toward recognition of such study by granting college credit. (Use additional paper if you like.)

APPENDIX D  
DESCRIPTION OF PROGRAMS

## Appendix D

### Burroughs Corporation

#### Basic Medium Systems Training

Basic Medium Systems is one of the many training programs that Burroughs Corporation makes available to its employees.

Program objectives include:

1. Understanding of hardware configurations and components
2. Knowledge of software availability, purpose, and use
3. Fundamentals of advanced assembly language coding
4. Intermediate knowledge of medium system COBOL

Four hundred Burroughs employees participated in the Medium Systems Program during 1971. The student composition consisted of systems representatives, salesmen, operators, programmers, and analysts. Successful completion of the Medium Systems Program improves the employee's opportunity for advancement or promotion. Participants in the program receive 80 hours of training in Basic Hardware/Software, 64 hours in COBOL, and 80 hours in Data Communication Hardware/Software. The types of materials utilized by Burroughs in Basic Medium Systems Training include films and other visual aids, tapes, printed material other than books and equipment.

Appropriate class components include the lecture, discussion, laboratory, and problem or task centered activities. The standards for successful completion of the program include regular attendance and the completion of several specified tasks. Formal evaluation of program participants is obtained through the utilization of "Data Communication Quizes." Instructors in the Medium Systems program possess the baccalaureate degree and have extensive Medium Systems experience.



## Chrysler Corporation

### Skill Improvement Program in Basic Electronics

Chrysler's Skill Improvement Program is designed to keep employees in the skilled trades abreast of all areas of his work. Participants are drawn from employees working on regular production, inspection, and material handling type jobs. At present, Chrysler Corporation has developed 103 such courses. The company expects to develop as many as 323 courses for skill improvement. Theoretically, each course is structured in six hour units. Grades are not considered necessary in that successful completion of the course is the end objective. Employee benefits to be gained through completion of the Skill Improvement Program include an assured increase in hourly wage, and assured advancement or promotion.

Some 737 Chrysler employees participated in the Skill Improvement Program in 1971. Basic Electronics was one of the courses offered, and will be considered here. The Basic Electronics course, as with other skill improvement courses, is offered as a home study program, with tutoring and testing on company time.

Objectives of the Basic Electronics course include:

1. Understanding of generators role in converting mechanical to electrical energy
2. Detailed knowledge of all types of generators
3. Parallel operation of b-c generators and their regulation
4. Complete understanding of construction and operation of d-c motors

Chrysler officials state that the Management of Supervisors Program is most successful in attaining its objectives. Therefore, the scope of the program will increase to include larger numbers of persons.

#### Certificate Program in Industrial Management

Chrysler's Certificate Program in Industrial Management is designed to upgrade the quality of foremen, general foremen, and superintendents in order to increase management effectiveness. The nature of the Certificate Program is described as the development of skills and acquiring of knowledge necessary to improve performance in present positions and preparing for possible advancement opportunities while leading to a certificate. This program is designed to move individuals into higher level management positions. Chrysler officials consider it to be equivalent to an Associate Degree at the community college. According to company officials, one major university in Michigan has already agreed to award two years of credit towards a Baccalaureate Degree in management to individuals successfully completing the Certificate Program in Industrial Management. A second state University has tentatively agreed to make a similar commitment.

The objectives of the Certificate Program in Industrial Management include:

1. Understanding the functions of management
2. Improved ability to communicate effectively
3. Maintain a more effective work force
4. Increased commitment to responsibilities as a manager

5. Ability to do circuit analysis of d-c motor controllers and maintain both d-c motors and generators

The class component utilized is primarily problem or task centered activity. Materials include books and printed materials. The standard for successful completion of the course in Basic Electronics is the completion of several specified tasks. Included are the successful completion of course exercises, tests, and assigned on-the-job work processes. Formal evaluation occurs via objective examinations, blueprint and projection sketching examinations, and completion tests. Instructors must possess a Baccalaureate Degree and should have an automotive background as well as prior teaching experience. Chrysler officials indicate that the company is planning to expand its Skill Improvement Program.

#### Management For Supervisors Program

Chrysler administrators are very proud of the Management for Supervisors Program. Officials point out that nothing like it is being offered at our colleges and universities. The Management for Supervisors Program focuses upon the nature of man and behavioral concepts. Chrysler officials believe that this program is worthy of college credit on both the undergraduate and graduate levels. They state that Management for Supervisors has been requested for doctoral students at Wayne State University, undergraduates at Oakland University, and presented to professional employees in public

school systems. It has also been presented in England and Venezuela, and plans are being made for future presentations in other foreign countries.

The Management for Supervisors Program is designed for persons in managerial positions. Some 2,680 Chrysler employees enrolled in this program in 1971. Program objectives include:

1. Awareness of effects of exposure and feedback
2. Increased use of balanced exposure and feedback to influence climate
3. Changes in managerial style

Class components utilized in the Management for Supervisors Program include the lecture, discussion, and work in the laboratory. Instructional materials include films and other visual aids, printed materials other than books and equipment. Standards for successful completion of the course are regular attendance and completion of several specified tasks. The specified tasks entail the completion of various psychological instruments. Formal evaluation occurs via reports and random survey of on-the-job usage of principles and techniques learned. Instructors in the Management for Supervisors Program are generally holders of a graduate degree. They must also have knowledge of industry, and the ability to handle the concepts and practices employed.

The program is presently offered to 27 classes of approximately 20 students per class. Both daytime and evening courses are offered in order to accommodate work schedules. Students generally enroll in a maximum of two classes per term. The school terms consists of three quarters of 11 weeks each. Each class meets for three hours a week, and a grading system of A, B, C, D, and N.C. is utilized. The discussion, laboratory, case methods, and problem or task centered activity constitute the class components. College level texts are required for the Certificate Program in Industrial Management. Printed materials other than books are also utilized. Standards for successful course completion include regular attendance and completion of several specified tasks. Tasks entail the problem analysis of cases and determination of solutions. Formal evaluation takes place via objective examinations and reports.

#### Foreman Induction Training

As implied in its title, the Foreman Induction Training Program is designed to train efficient foremen. The nature of the program is in-service training and job upgrading. All participants in Foremen Induction Training are newly appointed foremen. In a typical year the program serves approximately 300 students. Students are enrolled for 120 classroom hours. Program objectives include:

1. Develop systematic approach to problem solving  
for decision making

2. An increased awareness of the participants personal crisis coping style
3. A greater awareness of the "new industrial employee" and his needs
4. A greater acceptance, performance for, and commitment to improve working relations among all Chrysler employees
5. The discovery and clarification of the relationship of functional activities affecting the role of the foreman

Successful completion of the program results in improved opportunity for advancement or promotion.

The lecture, discussion, laboratory, case method, and problem or task centered activity are class components utilized in Foreman Induction Training. Instructional materials include books, films, and other visual aids, tapes, printed materials other than books, and equipment. Regular attendance and the completion of several specified tasks are required for successful completion of the course. There is no formal evaluation, and feedback as to the success of the Foreman Induction Training Program is acquired through observation of the foreman's ability to put into practice the principles emphasized. Instructors in the program generally possess the Baccalaureate Degree and years of experience in functional areas of quality, cost, labor relations, work standards, production control, medical requirements, personnel, etc.

## Clark Equipment Company - Benton Harbor

### Industrial Management Training Program

Officials of Clark Equipment Company define the purpose of the company's Industrial Management Program as to provide a high quality training service geared to fulfill the needs and desires of industry at a minimum cost. The Industrial Management Program consists of numerous courses designed to develop competency in specific areas. Opportunities for advancement or promotion are not directly related to successful achievement in courses provided.

### Basic Elements of Hydraulics

Basic Elements of Hydraulics is one of numerous courses offered in the Clark Industrial Management Training Program.

Course objectives include:

1. Understanding of basic fluid flow
2. Understanding of component applications
3. Understanding of basic circuits

Class components utilized are the lecture and discussion. Books constitute the only materials utilized in instruction. The only standard for successful completion of Basic Hydraulics is regular attendance. Formal evaluation is conducted through objective examinations. Instructors in Basic Hydraulics must have at least a two-year degree in addition to appropriate experiences. Fifteen persons participated in the course as students during 1971.

## Slide Rule Simplified

The Clark Industrial Management Training Program includes a course entitled Slide Rule Simplified. The objectives of this course are:

1. To learn the purposes and use of slide rules
2. To learn how to carry out arithmetic calculations
3. To learn exponentiation
4. To learn how to perform trigonometric calculations

Appropriate class components include the lecture, discussion, and problem or task centered activity. A text is utilized for instruction. Successful completion of this course is contingent upon regular attendance. Objective examinations constitute the only form of evaluation. An instructor of Slide Rule Simplified must possess the minimum of a high school diploma. Seventeen persons enrolled in the course in 1971.

## Laboratory Techniques of Stress Analysis

Clark Equipment Company makes available to its employees a course in Laboratory Techniques of Stress Analysis. This course has the following objectives:

1. Understanding of strain measurement methods
2. Application of strain gages
3. Ability to spray brittle lacquer
4. Awareness of dangers in using brittle lacquer



## 5. Knowledge of instrumentation techniques

Class components are the lecture, discussion, and laboratory.

Equipment is the only material utilized in instruction. Regular attendance serves as the criteria for successful completion of the course in Stress Analysis. There is no formal evaluation.

Instructors in Laboratory Techniques of Stress Analysis are holders of a high school diploma and must have several years of experience in the use of measurement techniques.

### Basic Statistics

A statement from the course summary for Basic Statistics cites the purpose for offering this course to Clark managers. It states that the language and technique of statistics are daily becoming more encompassing. Managers at all levels must be able to cope with more data inputs. The ability to think and argue quantitatively are the attributes of today's successful executive.

This course is being offered to give an understanding of the concepts of modern statistical practices, useful statistical tools, and the language of statistics for communicating more effectively with specialists. Course content consists of the following topics:

1. Concepts and vocabulary
2. Describing collections of data
3. Getting information from data
4. Collecting data efficiently

5. Deciding between two alternatives
6. Relating two variables
7. Relating many variables
8. Models of uncertainty
9. Decision under uncertainty

Basic Statistics is a lecture course with homework assignments and examinations. The test for the course is Elementary Statistics by Paul G. Hoel, Wiley Publishers.

## Consumers Power Company

### Effective Management

Consumers Power Company has developed what company officials believe is a successful program in effective management. "Effective Management" was designed for middle management employees who have other management personnel reporting to them. The program is taught by persons who have participated in graduate work beyond the baccalaureate, in this instance recipients of the Ph.D. Course objectives include:

1. To increase personal efficiency by better organizing, planning, and delegation
2. To increase department efficiency by developing a results oriented management style
3. To instill a continuing desire for self-improvement and growth on the job for both the manager and his subordinates

The topics discussed are:

1. Effective Managerial Psychology
2. Appraising Managerial Performance
3. Motivation
4. Problem-Solving and Decision-Making
5. Setting Your Management Style

The Effective Management Program is a five-day program that calls for approximately 60 hours of participation. Some 90 employees participated in the Effective Management Program in 1971. Successful completion of the program results in improved opportunity for advancement or promotion. Class components utilized in Effective Management are the lecture, discussion, seminar, and case method. Instructional materials include films and other visual aids and printed material in the form of Conferees' Guides. Regular attendance constitutes the standard for successful completion of the course, and there exists no formal evaluation.

#### Fundamentals of Natural Gas

Consumers Power offers Fundamentals of Natural Gas as a component of its in-service training and job upgrading program.

Course objectives include:

1. Better understanding of gas laws and their application
2. Familiarity with common natural gas terminology
3. General knowledge of natural gas, where it originates and is stored, and how it is transmitted to the consumer

Approximately 100 employees enrolled in Fundamentals of Natural Gas during 1971. A regular work schedule is maintained for the duration of the course, but there is no expense to employees. Successful completion of the program results in an improved opportunity for advancement or promotion.

The lecture and discussion constitute the class components of Fundamentals of Natural Gas. Instructional materials consist of a programmed learning text. The standards for successful completion of the course are regular attendance, and completion of several specified tasks. A pre-test and post-test is administered to employees having enrolled in the fundamentals of Natural Gas course, but no formal evaluation per se occurs.

#### Fundamentals of Electricity I and II

Included in Consumers Power Company's in-service training and job upgrading program are two courses entitled Fundamentals of Electricity I and II respectively. Approximately 150 employees enrolled in the combined courses in 1971. Successful completion of Fundamentals of Electricity I and II lead to improved opportunity for advancement or promotion.

#### Electricity I

The purpose of Fundamentals of Electricity I is to develop a basic understanding of electrical fundamentals as applied to utility work and to Consumers Power Company. This course focuses upon the following topics:

1. Electricity - Electron Flow
2. Ohm's Law
3. Series Circuits
4. Parallel Circuits
5. Power

6. High and Low Voltage Conditions
7. Magnetism (generators and transformers)
8. Practical Application

The course is a programmed learning course designed for individual instruction. The program takes about 20 hours to complete.

## Electricity II

Fundamentals of Electricity II is designed to teach the fundamentals of alternating current electricity and to provide additional understanding of terms introduced in Fundamentals of Electricity I. Subject content includes:

1. Significance of A-C Voltage
2. Wave - Form Analysis
3. Inductive Reactance
4. Capacitive Reactance
5. Impedance
6. A-C Power
7. Meters

Fundamentals of Electricity II is a programmed learning course designed for individual instruction and takes approximately 30 hours to complete.

Fundamentals of Electricity I and II both utilize the lecture, discussion, and problem or task centered activity as class components. The standard for successful completion of the courses is regular attendance. Pre-tests and post-tests are utilized, but no formal grading takes place. Instructors for Fundamentals of Electricity I and II are holders of the Baccalaureate Degree and are experienced in the electrical field.

## Basic of Job Management-Methods

A course in Basic of Job Management-Methods is provided to Consumers Power Company employees for purposes of in-service training and job upgrading. Basic of Job Management is designed to meet the needs of persons serving in various supervisory capacities within the company. Some 100 employees enrolled in this course in 1971. The objectives of Basic of Job Management include:

1. To define the Supervisors role in Consumers Power Company
2. To instruct the new supervisors in the use of the performance review, discipline procedure, and coaching/counseling
3. To improve managerial skills of work planning, decision making, and training

Participants in the program improve their opportunity for advancement or promotion.

The class components utilized in Basics of Job Management are lecture, discussion, seminar, and problem or task centered activity. Printed materials other than books serve as the basis for instruction. Regular attendance is required for successful completion of the course. Instructors are normally college professors, but the minimum of a Baccalaureate Degree is required.

Corning Glass Works, Ford Motor Company  
and Teleometrics International

Models for Management

Teleometrics International is responsible for conducting its Models for Management Program for the Ford Motor Company, Corning Glass Works, and other area companies. A Part I of the questionnaire utilized in the study of educational programs in business and industry was not returned for this program. The discussion to follow will therefore lack this particular information. Elements of the Models for Management seminar were developed for graduate students of the University of Texas Graduate School of Business, as a course on organizational behavior. Objectives of this program include:

1. Providing a broad overview and synthesis of behavioral science concepts which have been demonstrated to have implications for management practices and organizational effectiveness
2. Affording assessment opportunities for the individual manager of his practices within the framework of such concepts
3. Providing a theoretical foundation for personal and organizational change

The Model for Management seminar generally entails 30 to 40 hours of classroom participation. In 1971, 500 Ford employees, and 1,000 employees from other companies participated in this course.



The lecture, discussion, seminar, laboratory, case method, and problem or task centered activity constitute the class components of Models for Management. Films and other visual aids and printed materials other than books are utilized in instruction. Successful completion of the course is contingent upon regular attendance. Instructors in Models for Management have generally participated in graduate work beyond the Baccalaureate Degree. Through their observations of on-the-job success of persons who have participated in the Models for Management Program, officials of Ford, Corning Glass, and Teleometrics International agree that the program is successful in attaining its objectives.

## Dow Chemical Company

### Basic Management Skills

Basic Management Skills is one of the many programs that Dow Chemical makes available to its employees. Approximately 80 employees, including foremen, staff managers, and production area managers participated in the Basic Management Skills Program in 1971. Program objectives include:

1. Demonstrate knowledge of the manager's job
2. Awareness of the "people equation" in management
3. More self-awareness, self-insight, and need for self-improvement
4. More awareness of the effect of the manager's actions upon others

Successful completion of the program results in improved opportunity for advancement or promotion.

The subject matter of Basic Management Skills pertains to the elements of management with emphasis upon interpersonal skills.

Specific course objectives are:

1. To increase understanding of self, others, and the processes affecting productivity of groups
2. To improve skills in working with others
3. To gain more knowledge and skill in such areas as understanding behavior, leadership, decision-making, communication, and interpersonal relations

Approximately 40 hours of classroom participation is necessary. Class components include the lecture, discussion, seminar, case method, and problem or task centered activity. Books, films, and other visual aids, printed materials other than books, and equipment are utilized in instruction. Regular attendance is required for successful completion of the course. Instructors have engaged in graduate work beyond the Baccalaureate Degree and have demonstrated knowledge of the subject matter.

#### The Mechanical Behavior of Polymers

The Mechanical Behavior of Polymers is a course that Dow offers to its employees. The objectives of this course include:

1. Knowledge of the fundamental factors relating structure properties and mechanical behavior of polymers
2. Application of this knowledge to an understanding of known materials
3. Use of this knowledge to develop new systems

Two hundred Dow employees enrolled in the Mechanical Behavior of Polymers course in 1971

## Federal Mogul Corporation

### Middle Management

Officials of Federal Mogul Corporation are proud of the company's Middle Management Program. Their assertion that this program is of college level equivalency is supported by the fact that several colleges have requested that the company share the Middle Management Program with them.

The Middle Management Program is a one week in-service program. Students average 40 to 45 hours of classroom participation. The Middle Management Program has been offered on an international basis. Program objectives include:

1. Improved quality of judgment
2. Establish a base for good decisions
3. Understanding of practical aspects of effective management
4. Development of ability to cope with change
5. Understanding of company problems

Successful completion of the course results in an improved opportunity for advancement or promotion. Some 50 persons serving in managerial positions with Federal Mogul participated in Middle Management in 1971.

The course content of Middle Management is designed to facilitate effective management and labor relations. Extensive use is made of the case study. Class components include the lecture, discussion, seminar, and problem or task centered activity. Films

and other visual aids, tapes, and printed materials other than books are utilized in instruction. Successful completion of the course in Middle Management is contingent upon regular attendance and the completion of several specified tasks. Participants are divided into teams for the purpose of attacking crises situations. Each team member submits a written briefs to the instructor. Students also individually attack one "grand" case study that entails a week of study. A three or four page brief of this week long case study is submitted to the instructor for evaluation. Formal evaluation of employees participating in the Middle Management Program is conducted through the submission of reports. Three to six months after the conclusion of the program participants submit to the program director written reports indicating what course objectives are being employed in the work setting and results attained. Instructors in the Middle Management Program have participated in graduate work beyond the baccalaureate and must know management theories and their application. The president of Federal Mogul and other company executives participate as instructors in the Middle Management Program.

#### Foreman Training Program

Administrators of the Federal Mogul Corporation believe that the company's Foreman Training Program is worthy of college credit at the freshman or sophomore level. This in-service training program

meets for a minimum of 40 to a maximum of 87 hours. Both line and staff employees may be brought together for this experience. Objectives of Foreman Training include:

1. Understanding of basic supervisory skills
2. Development of interpersonal skills
3. Knowledge of leadership responsibility

Several hundred Federal Mogul employees participated in the Foreman Training Program in 1971. Successful completion of the program results in an improved opportunity for advancement or promotion.

Specific topics covered in Foreman Training include interpersonal relations, human relations, job instruction, labor relations, and the satisfaction and happiness of the employee. The discussion, seminar, case method, and problem or task centered activity constitute the class components utilized. Instructional materials include films and other visual aids, tapes, printed material other than books, and equipment. Successful course completion is contingent upon regular attendance. Reaction feedback and the performance of the unit serve as the means of evaluation. Instructors in the Foreman Training Program have participated in graduate work beyond the baccalaureate. Preferably, they are also former machinists, foremen, school teachers, etc.

## Presentation Techniques

As is implicit in its title, Presentation Techniques is designed to refine such on the part of the business man. Participants in this program are primarily persons holding middle management positions in Federal Mogul. They are recommended by their supervisors according to need and the ability to profit from such an experience. The program in Presentation Techniques generally runs three days, averaging 30 hours of student participation. The entire learning experience is based upon establishing an atmosphere of openness and trust. Therefore, each member orally critiques himself throughout the program, and in turn is critique by every other participant. The instructor also addresses written and oral critique to each participant. Based upon observations of effected change by participants in the reactive domain, the educational domain, and the active domain, Federal Mogul officials judge Presentation Techniques as successful.

## General Motors Institute

### Dealership Management Development

In 1971, General Motors Institute made its Dealership Management Development Program available to some 118 employees of dealership organizations who have potential for advancement and/or members of the dealer-owner's family. The purpose of the Dealership Management Development Program is to provide each General Motors dealership with a means of building future management capability within its own business, and is recommended for:

1. Individuals who will eventually assume full dealership management responsibility as the owner
2. Those men in a dealership who have been specializing in one phase of the business and need to develop a more complete understanding of the total operation

Successful completion of the Dealership Management Development Program results in an improved opportunity for advancement or promotion.

The lecture, discussion, seminar, case method, and problem or task centered activity are class components utilized in the Dealership Management Development Program. Instructional materials include films and other visual aids, tapes, printed material other than books, and equipment. Regular attendance is necessary for successful completion of the course. There are no examinations in the Dealership Management



Development Program, but participants do submit a written analysis of a case for evaluation. Instructors in the program have participated in graduate work beyond the baccalaureate, and must have knowledge and experience in car division or dealership sales.

#### Management Relationships and Responsibilities

The General Motors Institute provides a course in Management Relationships and Responsibilities to industrial managers, general managers, and staff through the assistant superintendent level of the General Motors Corporation. This course utilizes case material of the Harvard Graduate School of Business Administration for discussion and analysis. Some 210 persons participated in the Management Relationships and Responsibilities course in 1971. Program objectives include:

1. Ability to perceive interrelationships of complex human, technical, and economic factors
2. Ability to integrate differences among individuals, groups, objectives, and ideas within an organization
3. Broadened perspective when thinking about human situations

There is no assured opportunity for advancement or promotion related to participation in the Management Relationships and Responsibilities Program.

The case method and discussion comprise the class components of Management Relationships and Responsibilities. The Harvard Cases constitute the instructional material utilized. Regular attendance is required for successful completion of the course. Formal evaluation is conducted via the submission of reports to the instructor. Instructors in the Management Relationships and Responsibilities Program have participated in graduate work beyond the baccalaureate. Persons teaching in the program are also graduates of the course, have worked with an instructor experienced in teaching the course, and must have thorough knowledge of the Harvard Case materials.

#### Intermediate Management Program

General Motors Institute initiated its Intermediate Management Program in 1972. Some 120 general foremen from plants and divisions of General Motors Corporation participated in this program. Intermediate Management is designed for general foremen having more than three years experience in this capacity. Objectives of the program include:

1. Develop a clear understanding of the difference between the requirements of the general foreman and foreman positions
2. Develop a deeper insight into the need for foreman development
3. Development of skills in management by objectives, performance analysis, appraisals, coaching/counseling, and delegation

There exists no opportunity, as a matter of fact, for advancement or promotion related to the program.

The lecture, discussion, case method, and problem or task centered activity serve as class components of Intermediate Management. Materials utilized in instruction include books, film and other visual aids, tapes, and printed materials other than books. Regular attendance is required for successful completion of the course. Formal evaluation occurs via the submission of written reports. Instructors in the Intermediate Management Program have participated in graduate work beyond the baccalaureate.

## Gibson Products Corporation

### Summer Internship

Gibson Products currently provides an invaluable opportunity for engineering students to gain practical experience. The company operates a summer employment program that hires potential engineering graduates as replacements for regular vacationing employees. While assisting regular employees in performing their normal job functions, students have the opportunity to be involved in a unique learning experience. Students are involved in attaining the following program objectives:

1. Improved ability to perform tests in engineering department labs involved in refrigeration and air conditioning
2. Develop skills in engineering report writing and interpretation of engineering data
3. Opportunity to learn basic thermodynamics and heat transfer as applied to air conditioning and refrigerators
4. Acquiring of basic electrical knowledge

The Gibson Summer Internship is not a course per se but apparently the students involved have a significant learning experience. To date, none of the students participating in the Gibson program have received credits for this experience. The president of Gibson Products believes that the internship program is successful in attaining its objectives and that students should receive college credit.

## Parke, Davis and Kepner-Tregoe

### Problem and Decision Analysis

Kepner-Tregoe is responsible for conducting the Parke, Davis Problem and Decision Analysis Program. The objectives of this program include:

1. Increased awareness of problem solving, decision making, and planning processes being used by the individual and by groups
2. Ability to describe the systematic process steps of problem solving, decision making, and planning verbally or in writing in a fixed period of time
3. Ability to articulate the rationale underlying each of the three concepts within fixed periods of time
4. Demonstrated ability to apply the problem solving, decision making, and planning processes to structured situations (cases)
5. Ability to apply each of the three processes to current on-the-job concerns when the data is available
6. Demonstrated process questioning skills

Successful completion of the course results in improved opportunity for advancement or promotion. Some students have received college credit for this course. On an international basis, Kepner-Tregoe presented its course in Problem and Decision Analysis to some 32,000 employees. Sixteen of these students were employed by Parke, Davis.

Course materials utilized in Problem and Decision Analysis pertain to problem analysis, decision analysis, and potential problem analysis. Class components include the lecture, discussion, case method, and problem or task centered assignments. The text for Problem and Decision Analysis is The Rational Manager by Charles H. Kepner and Benjamin B. Tregoe. Other instructional materials include tapes, workbooks, cases, and worksheets. Successful completion of the course is contingent upon regular attendance and completion of several specified tasks. Included is demonstrated application of concepts to cases, and application of concepts to on-job concerns currently facing the participants. Objective examinations are utilized for student evaluation where some form of credit is being granted. The quality of the instructors performance is evaluated on a regular basis. This occurs through questionnaires completed by students, and on sight audits by authorized Kepner-Tregoe personnel. Instructors in Problem and Decision Analysis generally have participated in graduate work beyond the baccalaureate. They must be highly perceptive people, able to motivate adults. Candidates must successfully pass two to three in-depth interviews by Kepner-Tregoe personnel, and must successfully complete a four week "in class" training program.

Parke, Davis employees have not received college credit for learning via Problem and Decision Analysis. However, the Kepner-Tregoe Program is currently being offered for credit at the United State Air Force Academy and Illinois Central College. These programs

are taught by faculty of these institutions who have been trained by Kepner-Tregoe. Some materials are specifically designed for these student audiences and additional procedures for the evaluation of students are added. Three units of credit are awarded and the course is conducted over the period of one semester. Kepner-Tregoe is presently considering two other arrangements with universities to offer programs for graduate credit.

Parke, Davis and Scientific Methods, Inc.

The Managerial Grid

Parke, Davis makes available to its employees a seminar entitled "The Managerial Grid." This program was developed by Scientific Methods, Inc. Instructors of the Managerial Grid have participated in graduate work beyond the baccalaureate and must be certified by Scientific Methods. Objectives for the program are:

1. Understanding various styles of leadership
2. Developing team action skills
3. Better understanding of personal leadership style

Anthony Pearson, General Manager of Scientific Methods, states, "A Grid Seminar participant, in addition to learning the theories, principles and models contained in the textbook, also learns a great deal about the principles and application of critique, intergroup conflict which is learned in the Tuesday activity and is a derivation from the Blake/Shepard/Mouton book Managing Intergroup Conflict in Industry, organization culture, and probably the most meaningful of all, they gain insight into their own behavior which is usually clouded by wishful thinking and self-deception prior to the seminar." Approximately 30 hours of prework are required and the work and study activities constitute between 55 and 60 hours of involvement. Forty-nine Parke, Davis employees participated in the Managerial Grid in 1971.



Class components utilized in teaching the Managerial Grid include the lecture, discussion, laboratory, case method, and problem or task centered activity. The text utilized in instruction is the Managerial Grid by Blake and Mouton. The film "Twelve Angry Men" and other visual aids are used in instruction along with printed materials. A prework booklet containing various text questionnaires, the Floyd Sheffield case, a work materials booklet, and associated handouts and scoring sheets are among the materials utilized. Successful completion of the Managerial Grid course is coontingent upon the completion of several specified tasks. Tasks are assigned on a daily basis for completion on both a team and individual basis.

Students are evaluated on the basis of written reports. Self-evaluation and group evaluation of each individual's contribution also occurs. Instructors in the Managerial Grid must be certified by Scientific Methods and have participated in graduate work beyond the baccalaureate. Officials of Parke, Davis and Scientific Methods believe that the Managerial Grid is successful in attaining its objectives.

## Simplicity Pattern Company

Dr. Frank S. Scott, Training Consultant and Professor of Engineering Technology at Western Michigan University, conducts the Supervisory Development Program of the Simplicity Pattern Company. Dr. Scott states that this program emerged from the need of Simplicity to promote from within, and for effective management.

Dr. Scott's work at Simplicity Pattern started in September, 1970. Through April, 1971, he surveyed the supervisory force of the Niles Plant (both line and staff), a total of some 120 personnel. This was a training needs survey. From this survey, coupled with numerous personal interviews, training needs in communications, organizational structure, knowledge of contract and human relations were established.

Initial training started in May, 1971. A series of six sessions were inaugurated as follows:

1. What is a supervisor
2. Organizational structure
3. Communication
4. Communication, continued
5. Labor relations
6. Informal organization
7. Listening

These sessions lasted through October, 1971. Some 100 supervisors attended in four groups. The objectives of the program were indicated as:

1. To orient the employee as to how Simplicity operates, thinks, and is organized
2. To discuss the basic principles and concepts of organizational administration

There is no direct opportunity for advancement or promotion associated with participation in Supervisory Development I.

Class components of Supervisory Development I include the lecture, discussion, and case method. Notes, films and other visual aids, tapes, printed materials other than books, and equipment were utilized in instruction. Regular attendance was required for successful completion of the course. Instructors for Supervisory Development I generally possess the high school diploma, but there are instances where this is not true. Dr. Scott and officials of Simplicity Pattern Company believe that Supervisory Development I is successful in attaining its objectives. They plan to repeat the program for new employees.

As a follow up to Supervisory Development I, a selected group of 50 key supervisors (line and staff) were asked to attend a new series of 15 training sessions using Boyd's text Management Minded Supervision, McGraw-Hill, 1968, as a basis. The objectives of

Supervisory Development II include:

1. Awareness of the scope and skills necessary to perform as an operating supervisor
2. Developing an attitude of "management mindedness"

Successful completion of Supervisory II results in improved opportunity for advancement or promotion.

Class components of Supervisory Development II include the lecture, discussion, laboratory, case method, and problem or task centered activity. In addition to Boyd's text, films and other visual aids, tapes, printed materials other than books, and equipment are utilized in instruction. Regular attendance and the completion of one paper entitled "My Philosophy of Supervision" are required for successful completion of the course. This paper, along with oral quizzes constitute the formal evaluation. Instructors in Supervisory Development II generally hold the baccalaureate degree.

MICHIGAN STATE UNIV. LIBRARIES



31293101845448