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**FACTORS WHICH AFFECT THE DEVELOPMENT OF COOPERATIVE
EDUCATION PROGRAMS IN FOUR-YEAR, POST-SECONDARY
EDUCATIONAL INSTITUTIONS IN THE UNITED STATES**

by

Harold B. Gilbertson

A DISSERTATION

**Presented to the Faculty of
The Graduate College in the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Philosophy
Field of Community and Human Resources**

Under the Supervision of Professor Gordon F. Culver

Lincoln, Nebraska

1978

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FACTORS WHICH AFFECT THE DEVELOPMENT OF COOPERATIVE EDUCATION
PROGRAMS IN FOUR-YEAR, POST-SECONDARY EDUCATIONAL INSTITUTIONS
IN THE UNITED STATES

BY

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iv
LIST OF TABLES	v
 Chapter	
1. INTRODUCTION	1
Purpose of this Study	6
Limitations and Delimitations of the Study .	7
Significance of the Study	8
Definition of Terms	9
Organization of the Study	12
2. REVIEW OF LITERATURE	14
Research Studies	23
3. DESIGN OF THE STUDY	35
Population	35
Sampling procedures	36
Instrumentation	37
Validation of the questionnaire	37
Reliability of questionnaire	40
Administration of the questionnaire ...	41
Data Analysis	42
Analysis of data	42
4. FINDINGS OF THE STUDY	45
Introduction	45
Facilitating Factors	46
Inhibiting Factors	57
Effects of Federal Funding	60
Presidential Attitudes	68
Supplementary Analysis	71

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS ...	79
Summary of Purpose and Procedures	79
Procedures	81
Population	81
Sample	81
Instrumentation	81
Validity and reliability	82
Data Analysis	83
Return rate	83
Analysis of data	83
Summary of Findings	85
Facilitating factors	85
Inhibiting factors	87
Effects of federal funding	88
Presidential attitudes	89
Supplementary analysis	91
Conclusions	92
Recommendations	94
BIBLIOGRAPHY	96
APPENDICES	
A. MEMBERS OF THE JURY	103
B. COVER LETTER AND QUESTIONNAIRE SENT TO JURY .	105
C. QUESTIONNAIRE	116
D. RELIABILITY COVER LETTER	127
E. COVER LETTER TO SAMPLE MEMBERS	131
F. REMINDER CARD	133
G. CROSSTABS TABLES BY VARIABLE 009	135
H. CROSSTABS TABLES BY VARIABLE 006	143
I. CROSSTABS TABLES BY VARIABLE 007	148
J. CROSSTABS TABLES BY VARIABLE 008	161

LIST OF TABLES

Table	Page
1. Increase of Cooperative Education Programs, Federal Government Involvement, and Student Participation over the Years	4
2. Rank, mean and standard deviation of factors by the entire group of respondents	48
3. Number and percentage of responses by the presidents included in the study to questions concerning support for the cooperative education concept	69
4. Chi square values, degrees of freedom, and significance levels for selected key factors crosstabulated by size of institution	77

Chapter 1

INTRODUCTION

A growing number of educators are committed to the premise that practical experience interwoven with academic study results in a more meaningful vehicle for effective education. Such commitment is evidenced by the rapid proliferation of programs of cooperative education in institutions of higher education across the country. A Department of Health, Education, and Welfare publication noted a five-fold increase in programs--from 199 programs in 1970 to 1,077 in 1976¹ -which encourage or require periods of practical work experience as a part of a student's academic degree program (see Table 1).

The concept of cooperative education is defined in a variety of ways ranging from a very broad definition, "...an integration of classroom work and practical experience,"² to a much more explicit definition offered by Richard J. Rowe

¹U.S. Department of Health, Education, and Welfare/Office of Education, Division of Training and Facilities, Cooperative Education Awards 1970-76 (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1976), p. 4.

²Henry H. Arnsby, Cooperative Education in the United States, U.S. Department Of Health, Education, and Welfare Bulletin No. 11 (Washington, D.C.: U.S. Government Printing Office, 1954), p. 1.

of the U.S. Office of Education, who stated:

...programs in institutions of higher education that alternate periods of full-time academic study with periods of full-time public or private employment that will not only afford students the opportunity to earn through employment funds required toward continuing and completing their education but will, so far as practicable, give them work experience related to their academic or occupational objectives.³

The formal inception of cooperative education can be traced to the year 1906.⁴ In that year, the founder of cooperative education, Herman Schneider, Dean of the College of Engineering at the University of Cincinnati, became concerned about the many facets of engineering that could not be taught in the classroom. Consequently, he enlisted the cooperation of various industries in the city of Cincinnati to provide practical experience for his students while he taught them the theory of engineering in the college classroom. Since 1906, Schneider's idea of a cooperative approach to education has captured the imagination of many institutions of higher education.

By 1920 seven other baccalaureate institutions and one technical institute had initiated programs of cooperative education; all were in engineering and business. In 1921 Antioch College, located in rural Yellow Springs, Ohio,

³Cooperative Education Awards 1970-76, op. cit., Foreward by Richard J. Rowe.

⁴J. C. Wohlford, "The Cooperative Education Division of ASEE--A Brief History," Engineering Education, LXI, 7 (April, 1971), 785.

inaugurated the first cooperative education program in a totally liberal arts institution.⁵ By 1927 sixteen schools were offering cooperative education programs with approximately 5,500 students participating.⁶

Thirty-four years later (1961), not more than 65 programs existed throughout the country.⁷

Data from the U.S. Department of Health, Education, and Welfare/Office of Education gave the number of cooperative education programs for that year as 127 and the number of participating students at 20,000. Since then, the curve of expansion has risen rapidly, due primarily to the allocation of monies by the Federal Government.⁸ Table 1 provides a graphic depiction of the exponential growth of programs and student involvement during the first three quarters of the twentieth century. In 1927, 16 programs of cooperative education were in operation in institutions of higher education in the United States; in 1976, 1,077 programs of cooperative education were in operation, an increase of 67 fold.

⁵Asa S. Knowles, Handbook of Cooperative Education (San Francisco: Jossey-Bass, Inc., 1971), p. 7.

⁶Wohlford, op. cit., p. 787.

⁷James A. Wilson and others, Implementation of Cooperative Education Program (Boston: Cooperative Education Research Center, Northeastern University, 1975), p. 1.

⁸Ibid., p. 2.

Table 1
Increase of Cooperative Education
Programs, Federal Government Involvement,
and Student Participation over the Years*

Year	Number of programs	Federal involvement	Student participation
1927	16		5,500
1961	65		14,000
1969	127		20,000
1970	199	\$ 1.5 million	30,000
1971	271	1.6 million	35,000
1972	311	1.7 million	38,000
1973	566	10.7 million	80,000
1974	759	10.7 million	140,000
1975	954	10.7 million	165,000
1976	1,077	10.7 million	190,000

*Information for this table was taken from Cooperative Education Awards 1970-76, U.S. Department of Health, Education, and Welfare/Office of Education, Division of Training and Facilities, Washington, D. C., 1976, p. 4.

Examination of these data tends to support the notion that cooperative education is an educational concept which has shown considerable growth.

According to Wilson and his associates, the implementation and growth of cooperative education programs requires strong commitment from institutions of higher education embarking on the development of such programs.⁹ Additionally, Wilson et al have noted that the single most important source of commitment is that of the president of the institution. In describing the commitment of the president to the concept of cooperative education, they stated:

⁹Ibid., p. 59.

The single most important source of commitment appears to be that of the president of the institution. The level of his/her determination coupled with his/her effectiveness in causing curriculum change is critical....¹⁰

Each of the stable programs had strong and effective presidential support. On the contrary, each of the programs having problems had either very little support or ineffective support from the President.¹¹

In describing the characteristics of cooperative education programs and the elements essential to their successful implementation, Knowles wrote: "The president, deans of colleges, and heads of departments offering cooperative education programs must give full support to these programs if they are to be successful."¹²

The literature strongly suggests that the president is a "key figure" in the success or failure of cooperative education programs on the college or university campus. With this thought in mind, it would appear that further study into the ways in which the presidents of institutions perceive factors which affect the development of cooperative education programs could provide insight into the future direction/support of cooperative education programs during the last quarter of the twentieth century.

¹⁰Ibid., p. 61.

¹¹Ibid.

¹²Knowles, op. cit., p. 205.

The findings generated by this study should benefit institutions that are planning to implement and/or expand cooperative education programs.

Purpose of this Study

The purpose of this study was to analyze the factors which administrators of four-year, post-secondary educational institutions in the United States perceive as affecting the development of cooperative education programs at their institutions. Secondly, the study has assessed the attitudes of the presidents included in the study toward the concept of cooperative education. Pursuant to the purpose of the study, the following research questions were formulated:

1. What are the factors--i.e., student interest, increased educational relevance, federal funding--which administrators of four-year, post-secondary educational institutions perceive as facilitating the development of cooperative education programs at their institutions?

2. What are the factors--i.e., lack of faculty/administrative support, lack of employer cooperation--which administrators of four-year, post-secondary educational institutions perceive as inhibiting the development of cooperative education programs at their institutions?

3. What is the effect of federal funding on selected key factors of cooperative education program development--i.e., increased educational relevance, student interest--as perceived by administrators of four-year, post-secondary educational institutions?

4. What is the attitude of the college presidents included in the study toward the concept of cooperative education?

Limitations and Delimitation of the Study

The following limitations should be taken into consideration when drawing inferences from the study to other environments.

1. The study was limited to administrators of four-year, post-secondary educational institutions in the United States which have programs of cooperative education in operation as listed in Undergraduate Programs of Cooperative Education in the United States and Canada, published by the Center for Cooperative Education Research, Northeastern University, Boston, Massachusetts.

2. The study is descriptive in design, and as such the intent was to alert institutions contemplating the implementation or strengthening of cooperative education programs to factors which facilitate or inhibit the development of such programs so that plans to effectively deal with these factors can be formulated and implemented.

3. The study was limited in time to the 1976-77 academic year.

4. The scope of the study was limited to those factors which focus upon cooperative education program development.

Significance of the Study

The changing demands on education necessitate research to discover new methods and procedures to facilitate learning. While the concept of cooperative education is not new, research regarding cooperative education program implementation and strengthening is somewhat limited. The dearth of research in the area of cooperative education program development limits educators with regard to the identification of factors which affect the development, implementation, and strengthening of programs of cooperative education in post-secondary institutions.

A review of the literature indicated that programs of cooperative education are rapidly developing across the United States and will probably continue to develop in the future. Such rapid growth requires that more research be initiated to give institutions a valid basis for determining whether or not to establish or expand programs of cooperative education.

In recent years there has been an increasing demand throughout the nation for education to become more relevant. From administrators the expectations for faculty are that

they will keep themselves abreast of new developments in their field; from faculty, that students be better prepared to carry on academic study; from employers, that potential employees be capable of doing efficient, productive work; and from the general public, that schools become more responsible and accountable and that education become more in tune with society as a whole.

The significance of this study is further predicated on the presence of student disenchantment with higher education, as evidenced by the widespread student unrest on college campuses during the late 1960's. The relative quiet that has existed since the early 1970's cannot be viewed as acceptance by students of the experiences provided through higher education.¹³ A frequently heard claim, especially during periods of unrest, is that higher education is irrelevant and that students are alienated from the larger society. This assertion tends to support the need for research into methods for involving students in relevant practical learning experiences which will integrate the university community with society.

Definition of Terms

Cooperative education. For the purpose of this study, cooperative education is defined as a process of education

¹³Edgar B. Schick, "Campus Ferment and Tranquility," School and Society, c. 2339 (February, 1972), 93.

in four-year, post-secondary education institutions which formally integrates the student's academic study with work experience in cooperating employer organizations. The usual plan is for students to alternate periods of full-time academic study with periods of full-time employment in appropriate fields of business, industry, government, social services, and the professions. The employment periods are considered an integral part of the student's education. Through the interaction of study and work experience, it is assumed that the student enhances his academic knowledge, his personal development, and his professional preparation. The teaching faculty, guidance counselors, coordinators, and employing supervisors share in the educational process of the cooperative student. Students are, as often as possible, paid for their work at the same rate as other employees at comparable levels of employment and experience.

College president. This refers to the chief executive officer of post-secondary education institutions included in the study. The chief executive officer is that individual or his designate who is authorized by the governing board to speak for the institution.

College administrators. This includes persons with such titles as Vice-chancellor, Vice-president, Dean, Department Chairman, and Cooperative Education Program Director.

Post-secondary education institutions. This includes institutions in the United States that are accredited by one of the national accrediting associations, are authorized to grant the baccalaureate degree, and had programs of cooperative education in operation during the 1976-77 academic year.

Public institutions. This refers to those post-secondary education institutions whose financial support comes primarily from the public sector of the economy.

Private institutions. This refers to those post-secondary education institutions whose financial support comes primarily from the private sector of the economy.

Facilitating factors. This includes those factors that are identified in the literature and perceived by the administrators included in the study which tend to encourage the development of programs of cooperative education in post-secondary educational institutions.

Inhibiting factors. This includes those factors that are identified in the literature and perceived by the administrators in the study which tend to discourage the development of programs of cooperative education in post-secondary educational institutions.

Organization of the Study

In Chapter 1 the purpose of the study has been indentified. In addition, the rationale for the study has been developed, appropriate terms defined, and limitations and delimitations presented.

The second chapter presents a review of the related literature and research. Included is a brief history of the cooperative education movement.

Chapter 3 includes a detailed presentation of the procedures of the study. Specifically, the research design, sample selection procedures, data collection methodology, and data analysis techniques which were utilized in the study are described.

The fourth chapter contains a presentation and analysis of the data obtained. Chapter 5 includes a summary, conclusions, and recommendations resulting from the study.

Chapter 2

REVIEW OF LITERATURE

Dr. Herman Schneider initiated the first cooperative education plan at the University of Cincinnati in 1906.¹ Twenty-seven young men were selected from 60 applicants, all majors in electrical and mechanical engineering, as the first cooperative education students.² Sixty-four years later, in 1970, S. A. Collings, Executive Secretary of the Cooperative Education Association, reported that 199 institutions of higher education participate in some form of cooperative education involving nearly 70,000 students.³ A report by the U. S. Government in 1976 gave these figures at 1,077 institutions having some form of cooperative education plan in operation involving 190,000 students.⁴

The rapid growth pattern of cooperative education bears testimony to two important facts: first, many educators and students place a very high value on participation in this

¹Asa S. Knowles and Associates, Handbook of Cooperative Education (San Francisco, California; Jossey-Bass Inc., 1971), p. 3.

²James G. Wholford, "The Cooperative Education Division of ASEE--A Brief History," Engineering Education (April, 1971), p. 785.

³A Directory of Cooperative Education 1970, Cooperative Education Association (March, 1970), p. 13.

⁴U. S. Department of Health, Education, and Welfare, op. cit., p.4.

form of education; and second, an enormous amount of work has gone into developing cooperative education to its present state as a viable form of learning.

Charles Seaverns, in the introduction to A Manual for Coordinators of Cooperative Education,⁵ divided the historical development of cooperative education into three periods: 1906-1942, 1943-1962, 1963-1970. To this must be added a fourth period: 1971 to the present time. This six-year period has witnessed a considerable expansion in cooperative education programs across the country.

The period between 1906 and 1942 saw the establishment of cooperative education programs in 20 institutions. Most prominent among these pioneer institutions were Northeastern University, 1909; University of Pittsburgh, 1910; Georgia Institute of Technology, 1912; Drexel University and Massachusetts Institute of Technology, 1919; Antioch College, 1920; University of Tennessee, 1926; and Auburn University, 1937.⁶ With the exception of Antioch College, all of these programs were in the area of engineering. Two generally held assumptions about cooperative education were discounted with the inception of the program in 1920 at Antioch College: first, that programs of cooperative

⁵Charles P. Seaverns, A Manual for Coordinators of Cooperative Education (Boston, Massachusetts: Center for Cooperative Education, Northeastern University, 1970), p.4.

⁶A Directory of Cooperation Education 1970, p. 14.

education could function only in an urban environment with considerable local industry; and second, that vocational or career-oriented fields of study were the only ones with which the cooperative education idea could be identified. Antioch College was a liberal arts college located in rural Yellow Springs, Ohio.

The Association of Cooperative Colleges was founded in 1926, just six short years after the establishment of the Antioch Program. Dean Herman Schneider served as its first president during the initial three years of its existence.⁷ By 1927 sixteen schools were offering the cooperative plan of education. These programs enrolled almost 5,500 students.⁸ Due to the preponderance of co-op programs in engineering, the American Society for Engineering Education (ASEE) established the Cooperative Education Division (CED) of ASEE in 1929.⁹

The establishment of some 20 cooperative education programs during a span of 35 years may not seem to represent spectacular growth. However, in discussing the development of cooperative education in the United States during this period of time, Roy Wollridge said that there was:

⁷Wholford, p. 786.

⁸Ibid., p. 787.

⁹Ibid., p. 790.

...a lack of understanding between education and industry. Business and industry felt education was cloistered in ivory towers...which made their teaching impractical and unrealistic. Education felt businessmen were entirely profit-motivated and not truly concerned with the true ideals of education.¹⁰

Wollridge further noted that, "academicians were mistaken in their concept that cooperative education was too close to being a trade school program," and that, "Co-op institutions contributed to this problem by stressing the financial benefits of the co-op plan."¹¹ Further complicating the development of cooperative education during this period were the Depression of the thirties and the beginning of World War II. The cooperative education movement survived the first one-third of the century of its existence even in the face of such obstacles and managed to show slight growth throughout that period.

An average of two cooperative programs each year was established during the twenty-year period from 1943-1960. It was during this period that C. J. Freund's The Cooperative System--A Manifesto was accepted as the official statement of the Cooperative Education Division of the

¹⁰Roy L. Wollridge, "The Development of Cooperative Education in the United States," Journal Of Cooperative Education, I, 1 (November, 1964), p. 13.

¹¹Ibid., pp. 14-15.