A study to determine the need for an advanced graduate program focused on career/occupational education.

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A STUDY TO DETERMINE THE NEED FOR AN ADVANCED GRADUATE PROGRAM FOCUSED ON CAREER/OCUPATIONAL EDUCATION

A Dissertation Presented

By

GERARD PASQUALE ANTONELLIS

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

May 1977

Education
A STUDY TO DETERMINE THE NEED FOR AN ADVANCED GRADUATE PROGRAM FOCUSED ON CAREER/OCcupational Education

A Dissertation Presented

By

GERARD PASQUALE ANTONELLIS

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Mario Fantini, Dean
School of Education
DEDICATION

This dissertation is dedicated to my dearest wife Jean with love and affection. Without Jean's constant support and understanding this study most certainly could not have been accomplished.

And to my children Jean, Gerard, Paul, Joan, Donald and Christel with whom I may now become reacquainted.
ACKNOWLEDGEMENT

I would like to express my sincere appreciation and gratitude to the members of my committee: Dr. Arthur W. Eve, Chairperson, Roger H. Peck, Juan P. Caban, and Jack Hruska, Dean's Representative, who gave so selflessly of their time and effort in assisting in the achievement of this dissertation.

I would also like to express my special appreciation to Dr. Roger H. Peck who has been my mentor during this long process and whose assistance and direction gave relevance to this document;

to my good and valued friend, Dr. George B. James, for whose encouragement and support I am deeply grateful;

to the Research Department of the Massachusetts Teachers Association for their assistance in the selection of the professional personnel randomly selected from school districts throughout the Commonwealth of Massachusetts and, of course, to all those individuals who participated in this study, without whom this study could not have been completed.
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ABSTRACT

A STUDY TO DETERMINE THE NEED FOR AN ADVANCED GRADUATE PROGRAM FOCUSED ON CAREER/OCCUPATIONAL EDUCATION

May 1977

Gerard Pasquale Antonellis, B.A., Boston University M.A., Bridgewater State College, Ed.D., University of Massachusetts

Directed by: Professor Arthur Eve

The study was conducted to determine the staff development needs of the teachers and administrators throughout the Commonwealth of Massachusetts. The three major objectives were:

1. To determine the need for additional in-service professional training programs focused on teaching skills related to specifically identified concepts in the area of career/occupational education.

2. To determine the need for a CAGS program focused on specifically identified teaching skills related to career/occupational education.

3. To determine the need for a CAGS program focused on specifically identified leadership/administrative skills related to career/occupational education.

Questionnaires were sent to 347 professional school personnel randomly selected from public school districts throughout the Commonwealth. A total of 316 usable questionnaires were returned, representing a 91 percent rate of return. Eighty-seven percent of the teacher respondents would participate in additional training focused on teaching skills related to career education. Sixty-two percent of the teacher
respondents would participate in a CAGS program focused on teaching skills related to career education, if it were offered in the geographic area. Thirty-seven percent of the teacher respondents are striving for administrative/leadership positions. Thirty-two percent of the teacher and administrator respondents would participate in leadership training focused on career education. Twenty-nine percent of the teacher and administrator respondents would participate in a CAGS program in leadership/administration focused on career education, if it were offered in their geographic area.

It is concluded that there is a great need for additional in-service professional training programs focused on teaching skills related to specifically identified career/occupational education concepts. There is a substantial need for a CAGS program focused on teaching skills related to career/occupational education, a CAGS program focused on leadership/administrative skills related to career/occupational education.

It is recommended that the state colleges, in cooperation with the Division of Occupational Education (Massachusetts State Department of Education), should work with surrounding school districts to provide in-service training programs. These programs should focus on specifically identified teaching and counseling skills related to career/occupational education. In-service sessions should be developed, concentrating on the following skill categories: (a) Teaching Achievement Motivation, (b) Student Awareness of Career Development Concepts, (c) Interdisciplinary Planning, (d) Knowledge of the World of Work, (e) Learning Goals for Career Development, (f) the Use of Multi-media, (g) Career Games and Kits, (h) the Use of Community Resources, (i) the Use of Learning Centers,
(j) Theories of Career Development, (k) Teaching Behavior in the Classroom, and (l) Individualized Instruction – Classroom Management. An effort should be made to provide professional and technical resources for the state colleges to enable these institutions to accomplish this endeavor. This effort should be coordinated by the Central Office of the State College System, with the cooperation of the State Department of Education.
CHAPTER I
INTRODUCTION

Background of the Problem

In our lives, change has become the one condition of which we can be certain. On the other hand, it is painfully apparent that "education - both that of children and that of their teachers - is not noted for its adaptive capacity."¹ In describing this unfortunate situation, Alvin Toffler uses some rather strong language. He states, "Our schools are facing backward toward a dying society, and we are busy cranking out 'industrial men people' prepared for a society that will die before they do."²

However, it is one thing to describe this ironic situation; and quite another task to be able to correct the situation. Consider one example: the accountability syndrome is certain to influence curriculum decisions for some time to come.³ But, one must ask, "Accountable for what?" There does not appear to be a national, state, or even local consensus as to what goals and objectives the educator should be accountable for; however, there is a forceful demand for effectiveness and efficiency in the operation of the schools.⁴

Whether the issue is accountability, or any one of the other major issues facing education, there does appear to be general agreement that the "classroom teacher" must play a
major role in the attempted solution.

The Role of the Classroom Teacher

It is becoming rather obvious that to insure attainment of success in the use of modern instructional schemes, the training of teachers becomes a most important factor. As one author states:

In the final analysis, it is the teacher who proposes alternative program units, determines their time distribution, and designs instructional materials for the broad range of student interests and needs. It is also the teacher who develops appropriate assessment procedures for evaluating student progress, as well as, curriculum design.5

This fact is especially important when one considers the number of changes in education that have been proposed since the outstanding curriculum development efforts of the 1960's. For many of these proposed changes, the skills and areas of knowledge possessed by the present classroom practitioner do not appear to be adequate.

Recent Proposed Changes in Education

The following concerns are included in the most noted of the recently proposed changes in education:

1. There is a heightened awareness of subcultures within the society and their problems.6

2. The development in the social and behavioral science, and in educational research provide new insights into instructional methodology, classroom management techniques, and curriculum development.7

3. There is an increasing concern about the impact of change on the physical and social ecology, with special emphasis on the dehumanizing tenden-
cies of a technological society. For some authors, the scientific and technological values are being stressed at the expense of social and moral values.

4. There is a greater effort to make the experiences of the students within the school consistent with the experiences they face outside the school.

In relation to changes three and four (above), Trump and Miller stress that the schools are charged with the task of preparing youth for "life" and, paradoxically, youth finds little in his educational experiences that is either applicable or germane. They explain:

He is part of a world of work, war, race tension, sex exploitation, economic affluency, economic distress, and organized protests against the social order. These are not bookish things and are not related to any basic set of facts. They raise questions in the minds of pupils for which they find only limited answers in the classroom.

It is also interesting to note a recent statement from the National Science Foundation. The NSF Advisory Committee for Science Education advises, "The articulation of mathematics with science, of science with technology and with the future of man and society poses the greatest challenge we face in the area of curriculum." This committee further explains:

Without this articulation, we will continue to suffer a long list of educational ills which threaten both the future of science and of society.... Undoubtedly the fault lies not with our citizenry, but with their education and its conventional breakdown of the instruction into disciplines.

This NSF committee recommends that the second generation curriculum attempts to emphasize the interdisciplinary nature of the separate disciplines.
In this same line of thought, it is even more interesting to note the following statement made by Dr. Jerome Bruner:

I believe I would be quite satisfied to declare, if not a moratorium, then something of a de-emphasis on matters that have to do with a structure of history, the structure of physics, the nature of mathematical consistency, and deal with it (a curriculum project) rather in the context of the problems that face us....

He goes further to recommend that we put vocation and intention back into the process of education.

These above-stated goals appear to be the underlying focus of the recent thrust in career education. This is especially the case if one accepts the general parameters of career education as being, "the preparation for meaningful and productive activity; at work or at leisure, whether paid or volunteer, as employee or employer, in private business or in the public sector, and in the family.

Career Education

Within the parameters stated above, one can define career education as "the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their lives in such a way that work becomes possible, meaningful, and rewarding to each individual."

The implementation of a career education, falling within these general parameters, places quite a strain on
the present role of the classroom teacher. This becomes even more obvious when one considers the following three points made by Dr. Cliff Helling: \(^{20}\)

1. Career development is a life-long process of integration of self and society; through productive activity, paid or unpaid.

2. Career development is every teacher's responsibility. Every teacher should teach for the application of their subject into the real world.

3. Career development curriculum should be coordinated so that each teacher's subject content is related to careers.

As one can note, it is the intent of career education "to make the experiences of the students within the school consistent with the experiences they face outside the school." To accomplish this goal, several recently developed instructional techniques and classroom management strategies can be utilized. The following are examples of some of these techniques: the use of learning centers, interdisciplinary planning techniques, teaching achievement motivation, value clarification techniques, team teaching, behavior modification, humanistic education, transactional analysis, creative problem solving, the use of community resources, career games and simulations, work experience programs, and the use of manipulatives. With the addition of all these techniques the problem still remains the same as it was stated at the Woods Hole Conference in 1959, "How to construct curriculum that can be taught by ordinary teachers to ordinary students; and at the same time reflect clearly the basic or underlying
principles of the various field of inquiry."\[21

In attempting to deal with this issue, Dr. Fred Blumenfeld appears to be asking the appropriate questions. These are (a) How can teachers presently in the classroom cope with these novel approaches? (b) Will communities be inclined to support in-service programs to retrain and re-educate teachers? (c) Will teacher educating institutions be willing to restructure courses so that teachers are prepared to promote alternative instructional programs?\[22

On the other hand, one must recognize the fact that the classroom teacher does not work in isolation. The teacher's role is significantly affected by her administrative/supervisory, supportive staff. In fact, Dr. Keith Goldhammer has found that "the evidence strongly indicates the principal is the key to quality education in his school."\[23

The Role of the Administrator

In describing the important role played by the school administrator, Dr. Goldhammer states:

The principal is in direct contact with teachers, parents, and pupils. He manages the processes through which goals are affected; policies are implemented; and satisfaction or dissatisfactions with the school program are secured.\[24

He feels there is a very strong relationship between the school administrator and the problems confronting the schools. This feeling is reflected in the following statement:

Requests for solutions call for higher levels of
knowledge, improved values, and increased understanding. While parents, politicians, preachers, and publishers are urged to greater efforts in finding solutions, the educational administrators and leaders are most often cited as at once the causitive factors and the appropriate agents for resolution of the problem.\textsuperscript{25}

On the other hand, this same author poignantly laments the fact that school administrators lack leadership skills, and that not much help is being offered them.\textsuperscript{26} He has found that many principals were left to learn about education on the job, and describes this situation as "something like giving medical students a stethoscope and scalpel and telling them to go out and learn medicine by experience."\textsuperscript{27}

Again, these findings reflect the need for more effective continuing educational programs for these practitioners.

The Need for Continuing Education: Further Comments

Peter Drucker has analyzed and detailed the effects that have caused the rapid rate of change on schools. He concludes, "When knowledge is applied to work, we need continuing education; that is, the frequent return of the experienced and accomplished adult to formal learning."\textsuperscript{28}

He further explains:

The very fact that we are using knowledge rather than experiences make change inevitable. For knowledge by definition innovates, searches, questions, and changes.... If a subject is learned to greater advantage after a man has gathered experience, we can postpone its study until he comes back as an accomplished practitioner....\textsuperscript{29}
These important thoughts certainly have significant application for the role of the classroom teacher, and the educational administrator and supervisor. Dr. Goldhammer expresses this same idea when he states, "the less tangible the content with which the professional man deals, the greater is his need for continuing education throughout his career."\(^{30}\)

**Purpose of the Study**

The study had two major objectives. These objectives are as follows:

A. To determine the skills and areas of knowledge needed by classroom teachers, counselors, school administrators, and supervisors to implement programs focused on career/occupational education. More specifically, these educators are employed in schools located throughout the Commonwealth of Massachusetts.

B. Based on the needs of the above-mentioned educators, designed the major components of an advanced graduate program in career/occupational education. The components of the program focused on the development of skills and understandings related to (1) leadership and administration; and (2) classroom management, curriculum development, and instruction.
The specific purposes of the study were:

1. Construct and administer a needs assessment instrument. The instrument was administered to classroom teachers, guidance personnel, school administrators, and supervisors, selected from schools throughout the Commonwealth of Massachusetts. The items on the instrument focused on the skills and areas of knowledge needed to implement career/occupational education programs.

2. From an analysis of the data obtained from the administration of the needs assessment instrument, determined (a) in general, the skills and areas of knowledge needed by the greatest number of these educators; (b) specifically, the classroom management, curriculum development, and instructional skills and understandings needed by the greatest number of classroom teachers and counselors; and (c) specifically, the leadership and administrative skills and understandings needed by the greatest number of present and prospective administrators and supervisors.

3. Using the skills and areas of knowledge needed by the greatest numbers of these educators and categories developed from an analysis of the literature, designed the major components for an advanced graduate program in career/occupational education. The components of the program are focused on the development of skills and understandings related to (a) leadership and administration; and (b) classroom management, curriculum development, and instruction.
**Definition of Terms**

The following terms are defined operationally as they were used in the study:

**Administration**: the processes which help the organization operate its mechanisms for achieving its goals. These processes act as a stabilizing force in the organization. They include such functions as planning, organizing, staffing, directing, coordinating, reporting, and budgeting.

**Advanced graduate program**: a post-Masters formal educational program of study consisting of 30 semester credit hours. Upon graduation from the program the participant receives a Certificate of Advanced Graduate Study.

**Career/occupational education**: the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual.

**Fitchburg State College enrollment area**: the school districts within a fifty (50) mile radius of Fitchburg State College, Fitchburg, Massachusetts.

**Leadership**: the processes which initiate changes in the organization; changes in either its goals or in the way the organization tries to achieve its goals. The emphasis here is upon change, as if differentiated from the emphasis on maintaining in the definition of administration.
Assumptions in the Study

For this study, the following assumptions are made:

1. Respondents reacted candidly and honestly to the items in the needs assessment instrument, especially those items related to the respondent's desire to participate in an advanced graduate program, and the specific skills the respondent would like to gain.

2. Respondent reacted to the attitudinal instrument in terms of their own attitudes as felt at the time of responding to the items.

Limitations of the Study

The determination of the potential enrollment for the advanced graduate program in career/occupational education is based on the respondents' perceived need to participate in such a program. While completing the instrument, these educators indicated a desire to participate in such a program, but at the time the program is offered a number of these persons may not participate in the program. This lack of actual participation could be caused by a number of reasons. This factor presents a major limitation for this aspect of the study.

Design of the Study

The study used a descriptive survey design, incorpo-
rating the construction and administration of needs assess-
ment instrument. This design, as it was used in the study, is summarized in the following sections.

Construction of the Instrument

The needs assessment instrument was constructed specifically for this study. The items were developed from ideas and concepts gleaned from the literature. This literature was related to (a) competency-based teacher education; (b) competency-based administrative training; (c) leadership development; (d) career education; (e) career development; and (f) occupational education.

The instrument consists of five major sections. These sections are as follows:

1. A biographical data sheet.
2. A series of charts presenting the major concepts of career/occupational education (i.e., the definition, general parameters, goals and objectives, dimensions, and the components of a comprehensive program).
3. General questions eliciting responses from (a) teachers and counselors, and (b) present and prospective school administrators and supervisors.
4. A check list of skills and areas of knowledge related to teaching and counseling. These skills and areas of knowledge focused on career/occupational education. They are related to classroom management, curriculum development, and instruction.
5. A check list of skills and areas of knowledge related to administration and supervision. These skills and areas of knowledge focused on career/occupational education. They relate to leadership and administration.

Administration of the Instrument

The needs assessment instrument was administered to 347 elementary and secondary classroom teachers, guidance personnel, school administrators, and supervisors randomly-selected in districts throughout the Commonwealth of Massachusetts.

Each educator was selected by using the random list of educators, supplied by the Research Department of the Massachusetts Teachers Association.

The instrument was administered to every classroom teacher, guidance person, supervisor, and administrator selected through the sampling process. Some of the instruments were administered to these educators during a school-wide faculty meeting. For other educators, the instruments were sent to the homes of the educators. For the latter group, one follow-up letter was sent to the participants who neglected to return the instrument.

Treatment of the Data

The data was processed through the use of an electronic computer. The questions posed by the needs assessment instrument provided the framework for the analysis and treat-
ment of the data collected. Whenever quantitative analysis of the data are made the investigator used percentages. Subjective statements made by the participants was categorized and utilized extensively.

Analysis of the Data

From an analysis of the data, the following information concerning the teachers and counselors in each category was determined.

1. The extent to which the teachers and counselors are currently implementing career/occupational education goals in their classroom (school).

2. The extent to which the teachers and counselors want to implement career/occupational education goals in their classroom (school).

3. The percent of teachers and counselors who want additional professional training to help them implement career/occupational goals in their classroom (school).

4. For each skill or area of knowledge presented on a check list, the percent of teachers and counselors who would like to gain the skill or knowledge. These skills and understandings are related to career/occupational education. They are focused on classroom management, curriculum development, and instruction.

5. The percent of teachers and counselors who would participate in an advanced graduate program in order to gain the skills and understandings they have checked on the above-
mentioned check list (item #4).

6. The percent of teachers and counselors who are aspiring for one of the following leadership/administrative positions in the future: (a) school administrator, (b) supervisor, (c) director, (d) coordinator, or (e) department chairman.

From the analysis of the data, the following information concerning the present and prospective school administrators/supervisors was determined.

1. The percent of present and prospective administrators and supervisors who want additional leadership/administrative training to help them implement career/occupational education goals in their school (school district).

2. For each skill or area of knowledge presented on a check list, the percent of present and prospective administrators and supervisors who would like to gain the skill or knowledge. These skills and understandings are related to career/occupational education. They are focused on leadership and administration.

3. The percent of present and prospective administrators and supervisors who would participate in an advanced graduate program in order to gain the skills and understandings they have checked on the above-mentioned check list (item #2).

The method for making generalizations from sample attributes was as follows:
a. The basic statistic for the generalization will be the Standard Error of a Percentage - shown by the letter "s" in the formula below:

\[
s = \sqrt{\frac{pq}{n}} \sqrt{1 - \frac{n}{N}}
\]

\( p = \) percent favoring a given item
\( q = \) percent not favoring (opposed to) a given item
\( n = \) sample size
\( N = \) size of population from which the sample has been randomly drawn

b. In this study, \( n=347, N=\text{approximately } 40,000 \), and \( p \) and \( q \) are each \(.50\). These figures for \( p \) and \( q \) are each designated as \(.50\).

c. As a standard error is associated with \( 68\% \) probability, it can be concluded that in the sample of 347, drawn from approximately 40,000, "there is a 68\% chance that any percentage found in this sample will not miss the true percentage in the population by more than .0268 or .03 (3\%)."

Application of the Major Findings

Based on the major findings, the investigator

1. Determined the potential enrollment for an advanced graduate program in career/occupational education offered in the Fitchburg State College enrollment area.

2. Designed the major components for the advanced graduate program in career/occupational education. The
components of the program focus on the development of skills and understandings related to a) leadership and administration; and b) classroom management, curriculum development, and instruction.

**Study Population**

The study population for the proposed study consisted of all the elementary and secondary classroom teachers, guidance personnel, school administrators, and supervisors in the randomly-selected sample of educators. These educators are located in districts throughout the Commonwealth of Massachusetts.

**Organization of the Dissertation**

In Chapter I of the dissertation, the problem is described and its background given. The design of the study, its limitations, and its significance is also presented. Chapter II includes a review of the literature as it related to the problem. In Chapter III the methodology used in the study is described. In Chapter IV is presented an analysis of the findings. Chapter V includes the summary, conclusions and recommendations.
FOOTNOTES


4 Houston and Howsam, Competency-Based Education, p. 3.


6 Houston and Howsam, Competency-Based Education, p. 2.

7 Ibid.

8 Ibid.

9 Trump and Miller, Curriculum Improvement, p. 42.

10 Ibid.

11 Ibid.

12 Ibid.


14 Ibid.

15 Ibid.

17Ibid.


19Ibid. p. 1.


24Ibid. p. 2.


27Ibid. p. 13.


29Ibid.

CHAPTER II
REVIEW OF RELATED RESEARCH AND RELATED LITERATURE

This study was essentially a survey to determine what conceptual skills and abilities were needed by Massachusetts classroom teachers, counselors, school administrators, and supervisors to implement programs focused on career/occupational education.

From the survey findings there followed the design of an advanced graduate program in career/occupational education - a program which focused on matters of leadership, administration, curriculum development, and instruction.

The review of the literature was conducted in five main areas:

1. In-service training for school administrators
2. In-service training for teachers
3. Competency-based teacher education
4. Competency-based administrative training
5. Career/occupational education for a changing world

In-Service Training for School Administrators

A Brief History

In 1962, in-service education for school administrators saw a new upsurge when the American Association of School Administrators established a commission charged with the responsibility of reporting on the continuing education of
school administrators. The commission drew up a guide consisting of twenty-five crucial points for the organization of in-service training for school administrators, and decided that such training had to be planned by the participants and initiated only in school systems ready to accept these programs. It recommended that the in-service programs be simply organized, that they draw a wide variety of resources, and that they be tailored to fit specific situations. The commission also emphasized that personnel involved in programs be capable and knowledgeable in working with people.

The Commission then conducted a survey of the number and types of in-service programs being conducted throughout the United States at that time. Some two hundred and fifty educational leaders were contacted. The report on the survey listed a number of institutions which were either already offering in-service programs for educational administrators, or were in the process of developing such programs. The survey found also that although many universities and state colleges were offering in-service opportunities to administrators, the offerings fell considerably below the need for such training. The survey report concluded:

Clearly, there was a tremendous range and variety of programs under way. Nearly everything that could be thought of or imagined that had implications for improving school administration, and for making the schools better, was being tried somewhere in some degree and in some fashion. Programs range all the way from high-level, concentrated seminars involving carefully selected people over a period of several weeks to
informal evening meetings of administrators and school board members in which procedures for purchasing school supplies were discussed.

The University Council for Education Administration (UCEA) at Ohio State University and the Center for the Advanced Study of Educational Administration (CASEA) at the University of Oregon are two major organizations conducting continuous research in educational administration. These organizations act as resource centers for many other universities and colleges offering programs in educational administration. Concerning the content of programs at the universities which are members of UCEA, one writer states:

....of the various issues that can be raised about the content of preparatory programs, perhaps the most critical of all is that of relevance. The issue is critical because of a growing gap between program content offered in university programs and the changing social, educational and leadership needs of society.  

Reporting on a UCEA survey of existing educational administration programs, John Nagle claims that they fail to meet today's needs. He states that in order to better prepare administrators for their role, the program should consider broadening the potential experiences by changing their courses; that there should be greater flexibility in the programs; and that there should be a shift to an interdisciplinary approach.  

Housan saw the university in-service programs as not having experimented with new and different formats of training school administrators, and as reluctant to learn about new developments. "One gets the impression that we are, by
and large, sitting on our collective hands at a time when we can ill afford to be warming our hands in this fashion.\textsuperscript{4}

In a survey with specific references to practicing superintendents, carried out a year later, Goldhammer claimed that although in most other professions the preparatory institutions cater to the needs of practitioners through in-service programs, very little was being done for the practicing superintendent.\textsuperscript{5}

Teachers College at Columbia University had attempted to respond to the need for change when in 1968 it introduced a revised educational administration program, "based on an assumption that the role of the school administrator is dynamic and changing rapidly."\textsuperscript{6}

In 1969, the American Association of School Administrators (AASA) had established a semi-autonomous organization called the National Academy for School Executives. This organization's program was based on the premise that "the past decade has witnessed increased emphasis upon in-service education. Societal change and the rapidly increasing fund of knowledge have forced the admission that the initial preparation is inadequate, however extensive, without subsequent in-service education experiences."\textsuperscript{7} The Academy attempted to provide an opportunity for the school administrators to attend seminars, which were designed with specific objectives, without lengthy interference with their duties. The meetings were held at different locations throughout the
country and the in-service programs appeared to parallel those offered by the American Management Association. Kinser describes the travelling in-service program:

Laboratory sessions incorporating simulation, role-playing, strategy planning, and the development of more effective skills, techniques, or instruments provide opportunities for the immediate application of new understandings. An attempt is made to assist the participants in the development of both immediate short-term strategies and long-term planning.

While the AASA program of in-service training offered through its National Academy for School Executives contains many ideas of value it must be remembered that it was essentially designed to meet the needs of superintendents and not principals. In a 1970 survey of the participants in these in-service training sessions, Becker found that the vast majority were either superintendents or assistant superintendents. That same year Becker surveyed 86 colleges and universities and found that only 23% offered formalized in-service training for principals.

In discussing the responsibilities of a principal and his preparation for the work involved, Lloyd Trump identifies two areas requiring preparation: "competent academic preparation and provisions for the practice of administration." Referring to the administrative skills, Trump suggests that "(the principal) learns his management duties through simulation instruction techniques. He participates frequently in both planned and formal small group activities."
It would appear that although there are efforts made to offer in-service programs for school principals, the development of these programs has not progressed much in the ten years since the Commission on In-Service Education for School Administrators reported:

Traditionally, the people of this country have lodged with any agency or institution a substantial measure of responsibility for providing in-service assistance to school administrators.14

When the Willis-Harrington Commission completed its studies in 1965, its report observed that many thousands of non-college bound secondary school students graduated without any preparation for jobs. The general program they had followed was often a watered-down duplicate of the college preparatory program, which was irrelevant to the needs of these students; in 1959, nearly a quarter of those entering ninth grade dropped out of high school before graduation. Good occupational education is needed by these youths to prepare them for work; and properly integrated into the high school curriculum, it would produce more relevant education and thus reduce the number of dropouts.

On August 24, 1966, Elliott L. Richardson, then Lieutenant Governor of Massachusetts, wrote to Mr. Norman Rabb, Chairman of the Massachusetts Advisory Council of Education:

I am convinced that the most urgent priority is an examination of the vocational, occupation, and technical training programs in our total system of tax supported education; the areas in which they overlap, conflict, or
complement one another; and a determination of ways in which the various components can best work as productive partners in providing the skills and flexibility required by changing employment needs.15

The impact of Richardson's statement and the findings of the Willis-Harrington report brought about strong recommendations in the field of occupational education administration.

In Part 3, paragraph 12, Section F, of the Schaefer-Kaufman Report, the following recommendations were made along with suggested approaches for the training of administrators in occupational education:

It is recommended that a graduate program, including the offering of the Ed.D. degree, with a major in occupational technical education, be established at one of the leading universities (University of Massachusetts, Harvard, or Boston University). Such a program should be interdisciplinary in nature, involving substantial work in sociology, psychology, economics, and other related areas. Moreover, M.Ed. offerings should be especially designed as appropriate to teacher needs at this level.16

The report goes on to state:

The advanced degree should assure the development of a new breed of leadership for occupational education with options in administration, research and college teaching. This leader for tomorrow must use the knowledge of the various social and behavioral sciences and perform the function of translating this knowledge into operation. He needs an understanding of the disciplines of the behavioral sciences, including sociology, psychology, and economics so as to be able to integrate research from these fields for the needs of occupational education.

The program to develop such leaders must be flexible, must be based on the background of the individual, and must be able to overcome some of the barriers presently involved in unrealistic certification requirements, foreign language
requirements, etc. The new occupational technical leader holding such a doctorate should radiate many skills, broad knowledge, and a high level of leadership.

The report went on to say that the approach to the development of the content for such a program must stem from an analysis of the role and function of the new breed itself. What is expected from the occupational leader of the future? Will this person be an administrator, a researcher, or a teacher? Will the person fill all three roles or specialize in one of them? These questions, said the report, can be answered only through an analysis of what is needed to accomplish the goals of occupational education in the years ahead.

The concept of an internship in depth was also suggested in the report. The cooperative programs in engineering as carried out by industry have been highly successful in producing competent engineering students and in relating theory to practice. Moreover, an internship, to be of value, must be highly individualized.

Research Studies Focusing on In-Service Training for School Administrators

In-depth studies on in-service training for School Administrators is a concern in some doctoral dissertations and in studies conducted by Ogletree at the University of Kentucky. The initial series of investigations performed by Ogletree and his associates on the effects of using college
personnel to assist local school administrators in the performance of their daily tasks reported that:

Educational programs in public schools improve more rapidly and more permanently when their leaders (superintendents, principals, and supervisors) receive part of their graduate training as they serve in their official positions on local school districts than when they are provided preparational experiences in college classrooms, periodic seminars or conferences.

Supervisors increase their effectiveness by working as teams with leadership teams in local districts than by working as individuals with local school leaders in workshops, conferences, seminars, or graduate classes. 18

The studies showed that where there are district-wide problems to be solved, it is much more advantageous to involve all the district administrators, instead of a select few, in the in-service education program. It was also concluded that when the team of consultants works with the local administrators on problems that are pertinent to the district, both the consultants and the local school officials tend to develop new skills and techniques in problem-solving. 19

The second extensive and intensive study, sponsored by the Cooperative Research Program of the Office of Education, was conducted by Ogletree 20 and his associates to develop procedures for extending the educational horizons and improve performance of school administrators in rural, culturally deprived, and economically depressed areas. Although the study showed some limiting factors such as cost of in-service programs, possibilities of conflict of interest, time needed by the college team to orient itself to the problem, and conflict in time schedules for both the college team and the
administrators, it was concluded that these in-service sessions were necessary and beneficial to all concerned. 21

Most of the other research studies done on in-service training for School Administrators have been doctoral dissertations. These studies deal, for the most part, with the effects in-service approaches have on the attitudes and behavior patterns of the administrators. Luckenback, 22 in 1959, conducted a study to determine whether a principal's operational behavior pattern was affected by an in-service training course. He found that although the principal did seem to have been affected by the in-service program it did not alter the attitudes of the teachers, students, and parents toward him, since the change was not significant enough. 23

Further studies showed that school administrators did, in fact, benefit from in-service programs offered them. Both Thomas 24 and Green 25 based their studies on in-service programs which were clinical in nature and short in duration. The in-service training offered by Thomas was a five-day-long training, while Green's experiment, supervised by Carl Rogers, took one weekend. Both, however, showed that the changes brought about through these short in-service sessions affected the administrators and through surveys done more than one year later it was apparent that the changes in the administrators did not disappear.

A study relevant to this point is one by Renfro 26 in
1969, in which he attempted to study the participation of elementary school principals in maintenance, improvement, and change oriented in-service activities. His study found that administrators based decisions to attend in-service workshops on the goals of the sessions and the identity of the people offering the activities.

Massachusetts Research Studies Focusing on In-Service Training of School Administrators

Paralleling national interest in such training, Massachusetts has moved to meet the need for development of occupational education programs. In the past, the subjects or disciplines comprising occupational education - home economics, vocational education, industrial arts, distributive education, business education and work study - have been treated as separate entities. Students were, and in many systems still are, able to specialize in just one subject area, thereby limiting future job choices.

The extreme to which these artificial divisions have extended is illustrated by the fact that the industrial arts teachers professional group, and the vocational teachers professional group, are separate organizations, having separate conventions and little communication. On a larger scale, academic education and occupational education have been seen as opposing instead of complementary processes.

The need for seeing occupational education as part of a total educational whole is stressed by the report of
Occupational education must be seen within the total context of education; the concepts of occupational education in the restricted sense of skill preparation for immediate entry into the work force needs to be broadened to include the cluster approach to occupational preparation necessary for orientation to gainful occupations and career planning much earlier in the education process that is now generally the case; and, so conceived, vocational, occupational, technical and career education not only are integral to and not alternatives for the educational process at all levels, but must be taken into account and reflected in all major educational decisions and priority determinations in local, institutional, state and federal setting now and in the future if the educational structures and strategies for revitalizing the nation's educational system are to meet the needs of the contemporary world.27

The need for occupational education has become glaringly apparent in the figures issued by the State Department of Education, Division of Occupational Education: some 60 percent of students graduating from high school do not go on to college, but do not have saleable skills, either.

Northeastern University Program.28 The central objective of the Northeastern Program is to equip prospective administrators and supervisors with the conceptual abilities, skills, and appropriate technical knowledge that will enable them to assume responsibilities associated with positions of leadership and such settings as specialized vocational schools, and community colleges, and in state agencies. For individuals with limited experience and graduate study in administration, the course of study provides a wide range of opportunities for candidates to examine the leadership
functions which coordinators, supervisors, and directors of occupational education now perform. Acknowledging the needs for administrative personnel who can initiate and implement emerging curricular designs relating to occupational education, the program at Northeastern University will assist graduate students to:

Gain insight into the factors which have brought about a higher priority for occupational education;

Apply theory drawn from the social sciences to practical situations;

Develop a greater understanding of concepts relative to the organization and administration of occupational education;

Articulate the objectives of occupational education, and forecast future direction.

The program of studies has been formulated to develop skills of generalization and the ability to diagnose problematical issues and attendant economic, social, and political factors. In addition to on-campus study, considerable emphasis is placed on field visitations, individualized instruction, and relevant internships. During various phases of the program, opportunities are provided for students to gain insight into the experiences of practicing administrators, and to become acquainted with practices and programs which have proven successful in the field. In the process of integrating theory and practice, extensive use is made of case studies, simulation techniques, and other methods which allow students to be actively involved and to learn by doing.

The activities include seminars, directed field
experiences, curriculum development, supervision, vocational
development and occupational information.

Westfield State College Program. 29 In 1970, West-
field State College implemented a program to prepare occupa-
tional education administrators. One of the major objectives
of this program was to develop a complete one-year program
that could be turned over to the Massachusetts Department of
Education, Division of Occupational Education. The original
idea was to provide the state with a model for a graduate
level program which the state could then turn over to other
colleges for their use.

The students in this program would receive a master's
degree in education. The seven participants had backgrounds
in three: vocational education and industrial arts, and
represented both junior and senior high school staffs.

Courses included work on philosophical, psychological
and sociological foundations, occupational information,
administration, data analysis, interpersonal relations, and
finances.

Fitchburg State College Program. 30 In 1970, Fitchburg
State College initiated a Pilot Program for occupational
directors. The program was established by Federal Funding
under the Educational Professional Development Act (EPDA) and
was jointly sponsored by the Department of Education and
Fitchburg State College. The official title was a "Pilot
Program for Training Prospective Directors and Supervisors of
Occupational Education." A major goal of the program was to train superintendents and others at the central office level, since it was believed that a high level position would be necessary if occupational education were to avoid fragmentation. However, since the role of Supervisor of Occupational Education was relatively new, it was realized that a secondary goal of the program was to give participants the ability to create and define such a position in a school system.

The program entitled participants to six graduate credits, and has since been made a twelve-credit required course part of the newly-established degree of Master of Occupational Education being offered by Fitchburg State College.

In-Service Training for Teachers

The history of in-service teacher education in the United States has been long and relatively stable in its basic premises, until quite recently. Following an historical overview, Tilley reported:

"...Only in a relatively few scattered cases have teachers utilized their creativeness and individuals and curriculum content to meet student needs. Many times in-service programs have not been relevant to individual teacher needs...in-service programs often bear little relationship to actual classroom realities."31

Tilley concludes his historical account of in-service education by noting:

"In summary, in-service teacher education has been a low priority vehicle that was largely ineffective for improving classroom instruction between the early 1800's and 1960."32
The traditional view of teacher education in which "teachers are not listed as having equal responsibility for structuring the nature of their own in-service offerings" is found in recent books about in-service programs.³³

Arnold Finch states that the purposes of in-service education are (1) to acquaint the teacher with new techniques, devices and arrangements; (2) to provide the teacher with the results of research on learning and the learning process; and (3) to prepare the teacher for new fields and new responsibilities.³⁴

In analyzing the traditional view of in-service education, Schumer says that, "all three of these purposes imply a passive receptivity on the part of the teacher. Writings on in-service (education) also convey a lack of direct teacher involvement."³⁵

As recently as 1972, there appeared a book which differs little from the traditional view of in-service education. Kozoll's and Ulmer's book is based on the premise that the administrator does and should decide what in-service education is best for teachers. It is the administrator rather than the teacher who makes the important decisions.³⁶

In this guide to better in-service practices, Kozoll and Ulmer stress in-service education as a three-step teacher-training process with the administrator in charge. It is the administrator who does the orientation, initial training, and on-going training which constitute a good program. The
administrator may work with a committee, "but you (the administrator) should have the option of deciding when and if all of these individuals need to be solicited for information on any one decision, and importantly, what additional people can make a contribution at specified times."

To conduct good in-service training sessions, Kozoll and Ulmer suggest:

Don't crowd too much into one session. Don't force a subject into an abbreviated time period. Don't expect too high a level of absorption. Don't cut off any staff present from a full and open discussion of any problem or topic. Don't forget to combine recognition with instruction. Don't forget to facilitate exchanges of ideas and variations on the approaches suggested by all members of the staff.

Thus, according to these writers, in-service programs should be controlled for the most part by someone other than the teacher - although the training is for the teacher's own good.

A negative view of teachers' capacities and capabilities is also reflected in an article by Thomas Miller:

Some of the more inefficiently planned and directed phases of local school programs are the in-service professional preparation programs for the school staff.... Often such planning is beyond the capability of personnel in the local school system.

While Miller suggests that systems cooperate in order to provide adequate in-service programs, he nowhere suggests that the impetus for in-service programs might come from the teachers rather than from administrators. In his view, administrators plan, direct and coordinate all efforts.

Fear of teachers controlling in-service programs is
widespread. Donald McCarty, in an article reviewing some objections to competency-based teacher education programs on both the graduate and undergraduate levels, states:

Moving control over content and approach (of teacher training programs) off the college campus will tend to reduce the preparation of teachers to a craft. Liberal arts professors will be excluded from an effective voice in the training of future teachers; instead, some hazy but ill-defined Teacher Education Council, dominated by practioners, will set the policies.⁴⁰

As early as 1963, John Moffitt raised the contrary view: "Only under those circumstances in which teachers find their own problems and want to do something about them can effective in-service education exist."⁴¹

Looking at in-service programs, Schumer concludes that those which seem to be most effective in bringing about positive changes in the classroom are those characterized as follows:

In-service, staff development programs (which) are participatory in planning and implementation, held in the teachers' environment, long-term in sequence, supportive in nature, volunteer in attendance and are relevant and appropriate in concept to the classroom.⁴²

Teachers' centers are an appropriate method of in-service education if the teacher is viewed as a responsible decision-maker with regard to his/her own education. In summarizing the way in which one center works in encouraging further professional growth in teachers through their participation in center activities and through the involvement of the center's advisory team as it works with teachers in their classrooms, Jacoby and Zellner state:
Each class is encouraged to develop its own personality by being responsive to the needs and interests of the children and the talents and style of the teacher. (The center approach) does not tell people what to do; it tries to help them do what they want and to extend what they are capable of doing.  

A basic framework to effect positive change through in-service programs has eight points, according to Durval:

1. Pre-service teacher training is only the beginning of a continuing program of professional growth.
2. Educational change means changes in teachers' behaviors.
3. Professional growth programs should be year-round activities not summer institutes of campus courses alone.
4. Attention should always be given to personal development as well as professional development in such programs.
5. Parents, para-professionals, students, administrators, and teachers should all be involved in in-service programs; the team approach is favored. 
6. Fuller use should be made of personnel resources within a school system, e.g., especially the teachers.
7. The programs should focus on the learning process as well as on content skills.
8. The programs should be during school time as much as possible.

Tilley agrees with the Durval position and continues by adding additional aspects of in-service programs which are prerequisites to effective changes within the classrooms. He suggests (1) flexible scheduling on in-service events; (2) extending the school year so that intensive programs may be staggered throughout the school year; (3) using the environment around the school as an additional resource for learning; and (4) being committed to the basic premise that teachers can, do, and will assume the responsibility for their own education provided they are working within an atmosphere where they can function with dignity and respect.
Competency-Based Teacher Education

Historical Development of CBTE

The major impetus for CBTE can be traced back to late 1967 when the Bureau of Research in the Office of Education issued a request for proposals which called for the design of models for the restructuring of elementary teacher education programs. A systems analysis approach was to be used in developing the specifications of the models. The request also indicated that the program design should be transportable to other institutions that train teachers. In addition, each model was to include a behavioral description of desired teaching competencies and the relationship of these competencies to the educational environment in which the teacher would perform. The design was also to include a systematic management plan for the development and implementation of the model within a school of education and cooperating local education agencies.\(^{46}\)

The Elementary Models, which are sets of specifications for comprehensive undergraduate and in-service teacher education programs for elementary teachers, resulted from this United States Office of Education effort. These models were developed by the following universities: Florida State University, Michigan State University, Syracuse University, Teachers College, Columbia University, the University of Georgia, the University of Massachusetts at Amherst, the University of Toledo, University of Pittsburgh, and the
University of Wisconsin. A tenth set was developed by the Northwest Regional Educational Laboratory.

In the original specifications prepared by the model developers, terms like "competency-based," "performance criteria," and "teaching competencies," are found throughout. These "Models" provided a conceptual base for competency-based teacher education.

H. Del Schalock in summarizing the conceptualization of CBTE within the framework of the "Models" indicated that the "Models" differ from traditional programs in the following ways:

1. A shift from an experience base to a performance-based mode of operation.
2. A shift from a primary focus upon knowledge and skill mastery to a primary focus upon output.
3. A shift from an essentially data-free to an essentially data-dependent mode of operation.
4. A shift from an essentially training function to a research, development, and training function.
5. A shift from an essentially impersonal, instruction-oriented learning environment to one that is personalized and student-oriented.
6. A shift from an essentially college- or university-centered program to a field-centered program.
7. A shift from a relatively narrow and essentially closed decision-making base to one that is broad and essentially open.47

As a result of the initial research activities and the subsequent efforts of dissemination of the products by the Office of Education, CBTE became well known. In an interview, James Steffensen noted that:

...At the time that the themes and specifications of the elementary models were being discussed throughout the Nation's teacher-education community, they were being reviewed actively within the Office of Education. Teacher Corps particularly viewed the specifications as
providing considerable assistance to its efforts to improve teacher education through a vigorous systematic data-based effort. As a result, Teacher Corps pilot-tested the initiation in 1970, of competency-based components at six of its project sites. Since then, all Teacher Corps projects have a competency-based orientation to their intern training program.48

Additional impetus was given to the CBTE movement by the National Council for Accreditation of Teacher Education (NCATE) when it adopted its Standard for the Accreditation of Teacher Education, 1970.49

The criteria adopted in the 1970 standards reflected a strong disposition toward a preparation program stressing performance. The fact that NCATE accredits the one-third of the teacher-education institutions that produce 80% of the nation's teachers suggests that the CBTE approach will be an important factor in the accreditation of these institutions under the 1970 NCATE standards.50

There is considerable evidence on the state level that the CBTE approach to certification of teachers is gaining momentum. In such states as Alabama, Arizona, Georgia, Texas, and Vermont, State Boards have passed, or are in the process of requiring that State Departments of Education take initial steps toward performance-based certification.

Other states, including Alabama, Arkansas and Indiana are studying the whole concept of CBTE.51 By fall, 1972, seventeen states had devised teacher-certification procedures based on the CBTE concept.52
To lend even more credibility to this new educational approach, the American Association of Colleges for Teacher Education (AACTE) Committee on PBTE\textsuperscript{53} began publishing a series to keep the education community abreast of CBTE happenings.

The CBTE movement, though still in its infancy, is already controversial. Some question its philosophical basis; others criticize its "mechanistic" characteristics and suggest that it is not humanistic; still others see it as a means of bringing about accountability and merit rating for teachers.\textsuperscript{54} In spite of the controversy surrounding it, CBTE has created an impetus for change that is unprecedented in the history of teacher education.

The Essence of the CBTE Approach

"Competency-based," often referred to as "performance-based," is a special designation for an educational approach which places greater emphasis on clearly defined objectives and assessment criteria for determining the attainment of the stated objectives. Such programs make explicit what the teacher or potential teacher should be able to do as a result of this training, i.e., with what competencies the teacher should emerge. Competencies may be defined as:

Those attitudes, knowledges, skills, and behaviors of a teacher which enable him to facilitate the intellectual, social, emotional and physical growth of children.\textsuperscript{55} Competencies are generally specified as objectives.
Objectives in CBTE

In a CBTE program, the objectives are generally classified according to one of the five types of criteria that may be applied in assessing performance. The five types of objectives are: cognitive, performance, consequence, affective, and exploratory. Cognitive objectives are those which specify the knowledges and skills to be demonstrated by the learner. Performance objectives require that the learner actually perform some activity. The learner, therefore, not only demonstrates his knowledge of what should be done, but also his ability to do it. Consequence objectives are stated in terms of the results of the learner's actions. Affective objectives are those which focus on attitudes, values, beliefs, and relationships. Although the CBTE approach seeks precise definition and assessments, affective objectives tend to resist this precision. These objectives must be dealt with, however, for they are an integral part of the entire CBTE approach. Exploratory objectives, sometimes referred to as "expressive" or "experience" objectives, are those which require the learner to experience a specific activity without any regard to any specific learning or behavioral change. The actual undertaking by the learner of the required activity is the basis for assessment. A visit to a ghetto or a barrio is an example of an exploratory objective. Once the experience has been undertaken, other objectives may be identified as necessary.
While all of these objectives are used in CBTE programs, the ultimate objective is the maximal employment of consequence objectives, i.e., the primary focus is effective change in student behavior.

Characteristics of CBTE

Houston and Howsam, who are among the leaders in the area of CBTE, give the following central characteristics for competency-based instruction:

2. Specification of the means for determining whether performance meets the indicated criterion levels.
3. Provision for one or more modes of instruction pertinent to the objectives through which the learning activities may take place.
4. Public sharing of the objectives, criteria, means of assessment, and alternative activities.
5. Assessment of the learning experience in terms of competency criteria.
6. Placement on the learner of the accountability for meeting the criteria.57

Other implied and related characteristics include the following: (1) Instruction is individualized and personalized; (2) the emphasis is on exit, rather than on entrance requirements; (3) modules are used as one of the vehicles for implementation of the approach (modules are units of learning that include a set of activities intended to facilitate the learner's attainment of previously specified objectives); (4) emphasis is on criterion-referenced assessment, rather than on norm-referenced. (Norm-referenced assessment is generally used in traditional programs. An individual receives a grade based on the performance of others. In
criterion-referenced assessment, each student is judged by his own ability to achieve the stated objectives.)

Houston points out that even among the disciplines of the movement, much confusion still exists about further characteristics and closely related concepts or implementation modes that are so commonly associated with it as to seem characteristics of the approach. 58

BTE vs. Traditional Teacher Education

CBTE programs differ greatly from the traditional programs. In CBTE programs the total program is considered prior to specifying instructional parts. In many traditional teacher-education programs, each instructor develops his own course with little regard to how it fits with other learning experiences.

In a CBTE program the competencies to be achieved are specified and the student moves through the program at his own rate of progress. In a traditional undergraduate teacher-education program, the program duration is set within certain limits - usually four years, and students go through an established number of courses. Emphasis is on the completion of a certain number of courses, regardless whether the student has acquired mastery in each area of study. CBTE programs place emphasis on exit requirements. Traditional teacher-education programs place a heavy emphasis on program entrance requirements.

CBTE programs have students spending more of their
time in school, in interaction with children. In addition, students spend more of their time in independent study. In traditional teacher-education programs, students spend most of their time on campus in class. Opportunities for individual study are generally of the homework assignment type. Contact with children in the school is usually limited to student-teaching experience in the senior year.

CBTE programs focus first on objectives, then on activities. In traditional teacher-education programs, the activities are often the primary focal point. CBTE emphasized the learner rather than the instructor. CBTE programs include a variety of instructional modes. Traditional teacher education programs usually utilize a limited number of instructional modes.

In CBTE programs, students are not compared with each other but are compared on the basis of predetermined objectives. There is a demand for explicitness of objectives and assessment criteria, which are made public in advance. In traditional teacher-education programs, assessment of teachers is often through nebulous observations, without previous establishment of criteria. Personalization of instruction is an important feature, and the major criterion for assessment is effective and efficient classroom performance. In the traditional teacher-education program, the major criterion is often the acquisition of knowledge.

Though very few universities can lay claim to a
complete CBTE program, the prospects of a new approach to teacher education has certainly shaken the complacency of many "status quo" teacher-education strongholds.

**Competency-Based Administrative Training**

**Influences from the Field of Administration in General**

Educational administration is an applied science which has evolved slowly, whose antecedent can be found in public and industrial administration. A major impetus was provided in the United States by Woodrow Wilson in an essay entitled "The Study of Administration," written in 1887 while he was an assistant professor. Wilson stated, "The object of administrative study is to rescue executive methods from the confusion of and costliness of empirical study and set them upon foundations laid deep in stable principal."\(^5^9\)

During the same time period - the end of the nineteenth century - industrial expansion and its management needs focused attention on the process of management/administration. An effort was being made to increase profits by increasing production and efficiency. Taylor's concept of "scientific management" has as its premise the specialization and coordination of tasks necessary to attain a given goal. A deficiency in Taylor's concept was the failure to recognize the conflict between the demands of the organization and the needs of the individual within the organization.\(^6^0\)

Gulick and Urwick added to the identification of
management needs and process by advocating that elements of
the organization could be identified and related according
to function. 61

The efforts of Taylor, Gulick, and Urwick centered
upon reducing administration to its components, for study,
and not viewing it as a total process. Their efforts have
helped to lay the foundation of modern concepts of adminis-
tration - many of which are being incorporated into public
school administration.

Influences from the Field of Educational Administration

At the turn of the century there were state superin-
tendents of schools in all of the existing 38 states. In
local areas individuals bore the title of superintendent of
schools, but many also served as the high school principal,
and some even taught classes in the high school. 62 There
did not seem to exist specific levels of responsibility,
nor a specific delineation of duties for these administrators.

Public school administration did not exist as a
discipline, nor was much attention focused upon it, although
the 1910 publication of The Administration of Public Educa-
tion in the United States by Samuel Dutton and David Sneeden
did bring a measure of attention to the field. 63 This was
followed in 1915 by Educational Administration and Super-
vision, a professional journal giving voice to the need for
efficiency in school administration. In 1916, communication
among school administrators began to improve when at a meeting
in Detroit of school principals and professors of education, The National Association of Secondary School Principals was formed. Decades later, a 1950 grant from the Kellogg Foundation enabled the American Association of School Administrators (AASA) to launch a program establishing regional centers at eight universities in an effort to improve educational administration. Prior to this, in a 1947 meeting of the AASA, the National Conference of Professors of Educational Administration (NCPEA) was formed. The NCPEA meets yearly, inviting college professors and individuals from other disciplines to pool information and research techniques, and collaborate in an effort to improve the teaching of educational administration. The Ford Foundation has assisted four New York State Universities in a regional program whose purpose is to develop a close liaison and cooperative effort to improve the training of administrators. These actions constitute a sample of the forces furthering the advancement of educational administration as a discipline.

**Efforts to Improve Educational Administration**

Concerns voiced by members within the field of educational administration have prompted actions to alleviate the problem and to update the preparatory programs, both pre-service and in-service. Efforts toward the improvement of educational administration have been sponsored by professional organizations, colleges and universities, as well as federal funding agencies.
In 1962 the University Council for Educational Administration conducted a seminar devoted to improving preparatory programs for school administrators. One of the results of this seminar was the compilation and publication of sixteen position papers in a volume edited by Lew and Rudman. In an effort to determine common learnings for all educational administrators, which may be used to form a core program, it was ascertained that administrators function within three dimensions; social, institutional and professional. The social dimension is based upon the premise that school administration is a social process which exists in response to society's needs. Within the social context education serves a specific function demanding specialized knowledge and skills from its members. This specialty is necessary to the attainment of the goals of the institution. The professional dimension delineates the learnings, both common and specialized, needed by the individuals within the institution in order to function successfully. It was also noted that although educational administrators function within the same dimensions and similar administrative task areas, the degree of the forces acting upon the position and the priorities of the tasks for that position may differ from those of other positions.

Lawrence Downey suggests that the forces impinging upon the secondary school principal are less powerful than those on the superintendent. Although the superintendent
and principal function within the same dimensions, the principal is required to have certain technical skills - those of a generalist in secondary education. 69

In 1969, under a grant from the United States Department of Health, Education and Welfare, Culbertson compiled a 570-page report on improving the preparation of educational leaders. The report emphasized that one of the primary questions to be answered by those concerned with program revision is, "What learnings should preparatory programs foster?" The report suggested guidelines to be followed for program revision, based upon the trends and needs as perceived by the individuals involved, and from generalizations derived from their analysis. 70 Within the report an investigation of program structure for superintendents prompted the following comment - which could be applied as well to the principalship:

Force analysis yielded evidence for both a need for greater integration among increasingly diverse specialized preparatory program elements and a need for program flexibility and individualization to develop special competence in institutional change and educational innovation on the part of the school superintendent. 71

The report noted the existence of specialized elements within preparatory programs and the need to develop competence in given areas. The report also acknowledged that a discrepancy existed between the training needs and the training opportunities afforded prospective administrators.

In 1972, the Conference Board, an independent non-profit organization, received a federal grant to explore,
among other subjects, the ability of educational leaders to meet the demands the educational system places upon them. The authors of the Board's report, Creamer and Feld, cite the seeming inability of administrators to cope with these demands, and the increased militancy of parents, students and teachers which have in many cases resulted in confrontations. The Board's recommendation concluded that any change in preparatory programs should be made within a systematic framework - an organized, logical, systematic plan, tailored to meet the needs of the learner. Furthermore, it was suggested that the training include a period of internship in the field. 72

Further attempts to improve administrative training included a 1972 Ford Foundation supported project entitled "The Consortium," the purpose of which was to provide an opportunity for a group of universities to work together toward the same goal - to develop educational leaders that could cope with today's demands. Although the ultimate goal was the same, each university developed its own program for attainment of the goal. Common characteristics of all programs included exposure to other disciplines, and field experiences - which included internships in state and community agencies, as well as in educational institutions. Columbia University, a member of the consortium, required that the final year of studies be spent in a concentration of professional studies in administration, in an effort to help develop
specific areas of competence. Evaluation of the program has yet to be completed, but the inter-disciplinary thrust of the program has been adopted by other institutions of higher education.73

Components of Competency-Based Administrative Training

The movement towards Competency-Based Administrative Training is an attempt at field-based and systematic instruction. It is designed to provide a conceptual base for the dissemination of learnings and the attainment of specific outcomes, using competencies germane to the function of a given position. Its purpose is to improve the preparatory programs of educators and administrators by the identification of the competencies necessary to a position, and by emphasis on the attainment of competence within those requisites.74 This movement is now being adopted and modified by many institutions in the training of educational administrators. It has gained the support of many universities, state, regional, and national professional organizations, as well as private and federal funding agencies.

Traditional programs and competency-based programs, although having the same ultimate goal, differ in many facets. A sampling of these differences include: 75, 76, 77
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<td>Accountability on learner</td>
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<tr>
<td>Interdisciplinary approach rigidly separated among disciplines</td>
<td>Interdisciplinary approach pre-empted within program</td>
</tr>
<tr>
<td>Mastery level undetermined</td>
<td>Mastery level pre-determined</td>
</tr>
<tr>
<td>Time is constant</td>
<td>Time varies</td>
</tr>
<tr>
<td>Achievement varies</td>
<td>Achievement constant</td>
</tr>
</tbody>
</table>

A competency-based program, within its framework, attempts to answer the following questions in determining the program to be offered to the prospective administrator:

What functions is the administrator called on to perform?
What content must he master to perform the task or the role?
What level of competency must be attained?
What experiences should the program provide to enable the attainment of competency?
What evaluative measures are applicable to determine the attainment of competency?

The efforts of Graff and Street to define educational administration in terms of competencies which school adminis-
trators should possess have resulted in the identification of three dimensions in a competency pattern: the required "job tasks," the "know-how" needed to function, and the "theory elements" which provide the philosophical base for the position. The emphasis that the authors place upon systematic analysis helps to minimize error of measurement so prevalent in many previous attempts of curriculum revision.79

An Irish educator, Joseph Sheehan, devised an educational model using a systematic diagram of interrelationships, the purpose of which was to provide the beginnings of description and definition of competence to be used in professional education. He viewed this as the first step in designing the system which should set priorities on the competencies in preparation for the training to be based upon them.80 Although all given position, the degree of importance of each may vary; hence priorities need be assigned among the competencies.

Current research is being done by Lloyd McCleary and E. T. Demars on competency-based education for administrators, in an effort to incorporate the concept in preparatory programs for administrators at the University of Utah. Lorrie Gale, who is associated with McCleary, has investigated the competencies essential to the principalship in Bolivia in an effort to establish the first pre-service program for principals.81
Ray Dethy, Executive Director of CAPAC and now Dean of the School of Education at Central Connecticut State College, directed a 1973 project for the development of a trial competency-based program for purposes of administrator certification in New York State. The Program Policy Board of CAPAC (Certification Alternative Project in Administration/Curriculum) has developed a trial instrument in an attempt to identify the role, responsibilities, and competencies associated with the school principalship for purposes of certification.

The efforts of the aforementioned groups and individuals all have a common factor - they seek to identify and describe the competencies necessary to successfully fulfill the role of a given position. The attempt is made to systematically classify and set priorities in these competencies in an effort to clarify the process and/or train an individual to function satisfactorily in a given position.

Use of Competency Statements

The use of categories depicting broad areas of competence, and competency statements which are molar statements depicting identifiable competencies, is a practice often used to identify required performance.

Jack Laurence, in 1958, compiled a source book of identifiable competencies to be used in the planning of internship programs at universities in the Middle Atlantic Region of the United States. Educational administrators and
university professors participating in the study were asked to respond to nine major categories with related tasks for each category. In 1959 Elbert Webster formulated listings of competencies into statements by combining two or more competencies into a more generalized competency statement. Using this procedure, Webster sought the opinions of school superintendents and university professors concerning the necessary competencies to be emphasized in the internship programs for superintendents. In 1974 Leroy Hopkins surveyed members of the National Conference of Professors of Educational Administration in an attempt to determine pre-service competencies vital to the superintendency and relationship of the perceptions and the personal characteristics of those who held them. A similar study in 1966 was undertaken by John Treblas to determine priorities of competencies to be developed in pre-service training programs for administrators, using as respondents superintendents of schools. Rosario Alberto in 1970 asked his sample, consisting of educators and government officials, to sort 60 competency statements into a quasi-normal distribution. The purpose was to set priorities for competencies in educational administration for Philippine public school administrators. The previously cited dissertation by Lorrie Gale, using school administrators and teachers in Bolivia as respondents, tested a model for prioritizing competencies using the competencies in the form of proficiency statements.
The use of competencies in the form of statements derived from need assessment surveys was advocated by Lloyd McCleary, Marshall Frinks, and Roger Kaufman. The need for this approach appeared for two reasons: earlier studies were limited to listings in surveys using a closed system approach; and secondly, little effort was directed at conducting a need assessment survey within an open systems concept of assessment, program planning, implementation, and feedback. The investigation of competency-based education is based upon, and presupposes, the open systems concept.

Trends in Competency-Based Administrative Training

The competency-based curriculum movement stems from a recognized need for specificity in training programs and for more valid assessment procedures in measuring performance of administrative officers. Evidence of the movement can be found in a survey by Allen Schmieder in 1973 of a thousand educator training institutions. His survey reveals that of the 783 respondent institutions 555 were either experimenting with, or implementing, competency-based education in their programs; 125 indicated that their programs were in fact competency based. They all professed conformity to the criteria of modularized program components, systematic program design, field orientation programs and individualization - although the author believes that the degree of adherence to the guidelines varied among the respondents.
A similar study by Wilson and Curtis surveyed actions taken by State Boards of Education concerning competency-based education for teachers and administrators. As of May 20, 1973, eleven states had mandated competency-based programs for teachers and administrators. The deadlines for the implementation, the types of programs, and the individuals to be concerned varied among the states. As of this writing two of the states have mandated total commitment to competency-based programs in the areas of curriculum and professional certification - Texas by 1977 and New York by 1980. Of the eleven states mandating competency-based programs, five have specified inclusion of both in-service and pre-service programs; five, pre-service programs only; and one (Tennessee), in-service programs only. Tennessee requires the programs for administrators only, while the other ten states are requiring the competency-based programs for both teachers and administrators.

There appear to be two major thrusts in the competency-based movement: (1) the development of criteria which include the competencies associated with the position for the purpose of certification; and (2) the identification of competencies for the purpose of instruction. The major difference between the two thrusts is that the latter focuses attention on both the pre-service and in-service preparation of administrators. (Van Meter, however, sees the movement as having three separate thrusts: (1) certifi-
cation - the specification of competence necessary for professional certification; (2) program development - the total sequential development of study in educational administra-
tion; (3) curriculum development - referring to the course-
by-course and topic-by-topic development of training materi-
als. He suggests that curriculum development be subsumed under program development.)

Evidence of the two thrusts can be seen in the actions taken by two separate agencies. The Texas State Board of Education in 1972 revised its standards for teacher certification to reflect the goals and objectives of their competency-based mandate; at the University of Utah a five-year program sought to have preparatory programs for adminis-
trators completely competency-based. Many State Departments of Education and university departments of educational admin-
istration are in fact moving toward competency-based programs.

The recognized need for a competency-based program is evidenced by efforts from many other quarters. The NASSP's Committee of Professors of Secondary School Adminis-
tration and Supervision (PSSAS) met in 1971 in an attempt to improve preparatory programs for secondary school adminis-
trators. One of the committee's assumptions pertaining to the development of programs for educational leadership, was that "further progress is determined by the achievement of competencies rather than time requirement." The committee
proposed a three dimensional model which illustrated systematic program planning. The model assumes that the identification of behavioral outcomes and the development of required leadership skills are determined by the achievement of competencies.97

The University Council for Educational Administration sent delegates to an international meeting held in July of 1974. One of the foci of this meeting was the training of educational administrators in terms of approaches which are competency-based.98 Private funding agencies have also contributed to the advancement of competency-based programs. The Rockefeller Brothers Foundation gave a grant to form a National Conference on Performance-Based Education Center in Princeton, whose function is to coordinate and develop research in competency-based education. The Danforth Foundation helped to sponsor the 1971 PSSAS conference which resulted in the above-mentioned PSSAS model.99 Research and development centers have been established in New Jersey and Utah.

Individuals from the field of educational administration have also given support to competency-based programs. J. Lloyd Trump states that preparatory programs should be determined by the achievement of competencies.100 Ray Dethy believes that the concept of competency-based education has the potential value of improving the process of professional education so that none are lost because of a weak foundation.
in preparatory programs. Culbertson and his colleagues in the earlier cited report "Preparing Educational Leaders for the Seventies" recognized the existence of specialized preparatory elements in the curriculum and the need to develop special competence in certain areas. Lloyd McCleary advocates the need for specificity in training programs and the use of competencies in these programs. Benjamin Rosner believes that the concept of competency-based instruction will be spurred on by the increased demands for accountability, relevancy, and cost-effective schooling.

Career/Occupational Education for a Changing World

Studies of the Sixties, Charting Background Needs

A number of regional studies and national surveys have helped fill the background for the current status of the field.

Maurice Roney, in his Oklahoma study of occupational education beyond high school, reports major population areas do not have sufficient technical education services and so are not keeping up with the occupational and manpower demands.

An Indiana Jobs for Youth study shows some similar trends, reporting that thirty-five percent of the graduates indicated an interest in taking vocational/technical courses. Fifty-six percent of the graduates said that their
high school training gave them little or no help in selecting an occupation. Less than forty percent of the reporting firms report high school students well prepared for work, and thirty-three percent stated drop-outs were not employable.

James Karns, whose doctoral dissertation in Missouri aimed at planning a state-wide program specifically in the area of existing and proposed vocational programs as they correspond to manpower needs, found that anticipated expansion was not necessarily in the area of manpower needs and that some occupations were seriously neglected - specifically, health occupations.

The head of civil service also suggests a closer cooperation between government and academia to allow a better relationship between studies and job requirements.

A Study of Industrial Advisory Councils by Burt is an extensive study of industry participation in vocational and technical education. His findings point to a general ambiguity among industrial leaders and educators as to the desirability and benefit derived from cooperation on programs. Burt also points out that informal arrangements between educators and industrial representatives are often more beneficial than an established advisory committee.

King, in a publication for the United States Office of Education, Department of Health, Education and Welfare, states that advisory committees have been useful and that
there is a need for more extensive use of such committees on the local level.110

William McGowan, in an effort to establish a more meaningful relationship between business and the public schools, recommended the setting up of clearing houses for vocational information used in training and guidance, and the establishment of a county council consisting of representatives from business, industry, and labor.111

The panel of consultants who helped draw up the Vocational Education Act of 1963 recognized the need to involve the labor market in educational decisions; as a result, the act requires collaboration between public employment officials in each state and the State Board for Vocational Education and local educational agencies.

Another study of the vocational programs in metropolitan Omaha recommends involvement of parents, to provide them with a better understanding of the education from which their children will seek employment. This study also recommended a closer matching of funds for projects from state, federal and local sources.112

There is a great deal of discussion about the comparative benefits of the comprehensive high school program as compared to the vocational technical school. The strong argument in favor of the comprehensive high school is the necessity that the technical student be able to affiliate and associate with the balance of the student body. This
aim allows the technical student to acquire and practice necessary social skills. The main advantage of the technical school is to allow the student more "hands-on" experiences with equipment. The Schaefer-Kaufman report, a study done on the students in the Commonwealth of Massachusetts, suggests that at this time there is insufficient evidence to validate either of these suppositions.\textsuperscript{113}

McDowell, after assessing the attitudes of teachers, administrators and employees, decided on a combination of the two systems, and used the survey results as a basis for formulating guidelines for comprehensive area vocational schools.\textsuperscript{114}

Grant Venn's article, "Vocational Education for All," started with the concept that occupational education must now become a fundamental part of the total educational system for every individual. He concluded:

1. It becomes the responsibility of each level of education to assist the individual in making the transition from the educational system to the world of work.

2. Schools and colleges must make learning how to work a part of their programs by actual work experience.\textsuperscript{115}

It is common but unfortunate, failing of schools to expend little effort to find out what happens to students after they leave the system. In many communities a fair number go to college - these are not of concern in this study. Our concern is with those youths who remain in the community, or move to another for employment reasons. What
are the employment or occupational opportunities for these students? It is known that the 14-24 year age group is growing in size, and that jobs for this age are harder to find. 116 A 1960 study showed that 800,000 students and 1.4 million other workers between the ages of 20-24 entered the work force. The James Horner study also concluded that young workers must be flexible enough to adapt to different geographical areas. 117

Flexibility in the labor force has decreased because of the lack of low skill jobs and the increased employment of women and minority groups. 118

Unemployment for this age group will normally be three times as high as other unemployment. The employment picture for the drop-out population looks even more bleak. They have an additional three times as many unemployed. 119

Jerry Rosenberg reports, from a National Conference on Need of Vocational and Technical Education, that there is a direct relationship between the years of education and the percentage of poverty: 120

<table>
<thead>
<tr>
<th>Years of Education</th>
<th>Percentage of Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 or less</td>
<td>37</td>
</tr>
<tr>
<td>9 - 11</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>over 12</td>
<td>8</td>
</tr>
</tbody>
</table>

The correlation is cited at this point to underline the necessity of recognizing the relationship between the number of drop-outs and the number of schools operating vocational technical programs. The statistics show that communities
with no vocational technical programs have three times the drop-out rate; consequently, they have at least eight times the normal unemployment for their past students. 121 In the Detroit public schools a work experience program for 14-15 year olds was developed to discourage drop-outs, to improve attendance and scholastic performance, to provide opportunities for exploration in work, and to provide income. The follow-up shows, however, that the only goals which were achieved were to provide financial assistance and work experience. 122

If progress continues at its present rate in decreasing drop-outs, it is estimated that by 1985 only older people will be numbered among those who are not high school graduates. 123 Progress is also being made toward the reduction of illiteracy, from about 7.1 percent in 1965 to a prediction of less than four percent by 1980. 124 Societal press for literacy is of course extreme: Edwin B. Parker, in his books The New Communications Media, states that the production of information is rising on an exponential curve. 125

A Consolidated List of Recommendations for the Seventies, and Later Decades

In the pages that follow, a large array of recommendations for career/occupational education have been consolidated in a single list. The sources from which they have been drawn are shown in the citations that follow the entry or entries drawn from each source:
1. Future skill requirements of most emerging, expanding and changing occupations will require formal education in the core curriculum.
2. Electronics and the health industry should have a high priority.
3. Lab facilities should be improved in high schools.
4. Practical English courses and terminology courses would eliminate a key failure of vocational education.126
5. Post secondary vocational and technical education should be expanded.
6. Adult education should receive increased funding and emphasis.
7. Deficiencies in health education and technical education require specific attention.
8. Financial aid policies should be modernized.
9. Communications between state and local levels should be improved.127
10. Small schools (under 300) should utilize shared time programs with area vocational schools.128
11. Cooperative programs between community colleges and high schools should be established.
12. Work attitude development should be emphasized.129
13. The comprehensive high school should be viewed as a viable setting for career/occupational education goals.130

In his summary of Review and Synthesis of Research in the Administration of Vocational and Technical Education, Ralph Weinrich suggests that:

The need for research which is based upon what we now know about organization and administration in general, but with specific applications to the problems of organizing and operating vocational and technical educational programs. Furthermore, it suggests that the leadership in the administration of vocational-technical education needs to discover more effective ways of adopting programs and processes to the rapidly changing conditions and needs of our society.131

This idea is shared by Linvill:

The situation now is that the time constant of man's particular professional career may be the order of five to ten years.... Accordingly, the kind of training that is needed now does not go into the immediate details of a given situation, but rather must provide flexibility so that he has the mobility to move from one job to another as the situation demands such moves.132
Summary

The literature stresses that in aligning career/occupational education with the world of work more than just specific skills are to be presented. The skills must be broad, the education must be flexible.

Current issues in the field include such problems as a paucity of programs, many of them very limited in scope. Counseling into occupational subjects, and job follow-up, are in seriously short supply, as is job placement counseling and assistance. No shortage of challenges exists; the present study seeks to respond to one aspect of the need in career/occupational education.
FOOTNOTES


11 Ibid., p. 6.

13 Ibid., p. 6.

14 Becker, Elementary Education Administration, p. 7.


16 Ibid., p. 16.


18 Ibid.


21 Ibid., p. 7.

22 Leon R. Luckenback, "The Effect of a Principal's In-Service Leadership Training Course Upon His Operational Behavior Pattern and Upon Attitudes of Teachers, Pupils, and Parents" (doctoral dissertation, University of Florida, 1959).

23 Ibid., p. 939.


29 Ibid., p. 28.

30 Ibid., p. 29.


32 Ibid., p. 94.


35 Schumer, Change Model, p. 39.


37 Ibid., pp. 27-34.
73

Ibid., pp. 37-38.


41 Moffit, pp. 37-38.

42 Schumer, Change Model, p. 42.


45 Tilley, In-Service Education, p. 78.


48 James Steffensen, private interview held in Washington, D.C., July 1, 1974. Dr. Steffensen was the Project Director, Bureau of Research, Office of Education, who was responsible for the planning, development, and leadership of the models development within the Office of Education.


50 Ibid., pp. 307-309.

52 Ibid., pp. 10-13.

53 PBTE stands for performance-based teacher education. PBTE is used synonymously with CBTE.

54 Foster, "PBTE Approach", p. 306.


57 Ibid., pp. 5-6.

58 Ibid., p. 5.


63 Ibid., p. 73.

64 Ibid., pp. 73-74.

65 Owens, Organizational Behavior, p. 19.

66 Ibid., pp. 16-17.
67 Ibid., p. 21.


71 Ibid., p. 522.


73 Ibid., pp. 43-46.


78 Wachner, et al., An Administrative Seminar, p. 3.


Gale, "Rural Bolivian Setting."

Lloyd McCleary, Competency-Based Educational Administration and Application to Related Fields. (paper) University of Utah, 1973 Ed077136, EA005159.

90 Roger Kaufman, A Systems Approach to Education: Derivation and Definition. (unpublished paper), Department of Instructional Technology, University of Southern California, 1968.


92 Schmieder, Competency-Based Education, pp. 349-350.


94 Eddy Van Meter, "Toward a Clarification of Educational Administration: Competency-Based Curriculum Goals and Technology" CCBC Notebook 2: University of Utah, 2-3; May 1973. (The Notebook is a quarterly nationally distributed from the University of Utah contains information pertaining to competency-based programs in educational administration.)

95 Texas State Board of Education. Revised Standards for Teacher Education. June 1972.


97 J. Lloyd Trump, et. al., Continuing the Search: Planning Pre-Service and In-Service Programs for Principals. (A report) Covington, Louisiana, January 1974.


101 Ray Dethy, (Statement made from Hearing of Education Committee), Hartford, Connecticut, February 1, 1974.
102 Culbertson, et al., Leaders from the Seventies, p. 58.


112 Edwin Parrish, A Look at Education for Work in the Omaha Public Schools, Omaha Board of Education, 1964.

113 Carl J. Schaefer, Jacob J. Kaufman, New Directions


116 James Horner, Everett Peterson, Occupational Education and Training for Tomorrow's World of Work: No. 1: Square Pegs in Round Holes, (Columbus: Ohio State University, 1965).

117 Ibid.


121 Horner and Peterson, World of Work.

122 In-School Youth Work Training Programs for Fourteen and Fifteen Year Old Youths." Detroit Public Schools, 1968.


CHAPTER III
METHODOLOGY USED IN THE STUDY

In this chapter are presented the methods used for gathering and analyzing the data. In the following sections are presented (1) the procedures used for gathering and processing the data related to the needs assessment phase; and (2) the procedures used to develop the matrix illustrating categories of content and behaviors for sets of objectives in career education.

Procedures Used for Gathering and Processing the Data Related to the Needs Assessment Phase

The needs assessment phase of the study had three major objectives. These objectives were as follows:

1. To determine the need for additional in-service professional training programs focused on teaching skills related to specifically identified concepts in the area of career/occupational education.

2. To determine the need for a CAGS program (Certificate of Advance Graduate Study) focused on specifically identified teaching skills related to career/occupational education.

3. To determine the need for a CAGS program focused on specifically identified leadership/adminis-
trative skills related to career/occupational education.

In order to achieve the above-stated objectives, the investigator used a descriptive survey design, incorporating the construction and administration of a needs assessment instrument. This design, as it was used in the study, is presented in the following sections.

Construction of the Instrument

The needs assessment instrument was constructed specifically for this study. A copy of the instrument is presented in Appendix A of this document. The items were developed from ideas and concepts gleaned from the literature. The literature was related to (a) competency-based teacher education; (b) competency-based administrative training; (c) leadership development; (d) career education; (e) career development; and (f) occupational education.

The instrument consists of five major sections. These sections are as follows:

1. A biographical data sheet.

2. A series of charts presenting the major concepts of career/occupational education (i.e., the definition, general parameters, goals and objectives, dimensions, and the components of a comprehensive program).

3. General questions eliciting responses from (a) teachers and counselors, and (b) present and
prospective school administrators and supervisors.

4. A checklist of 65 skills and areas of knowledge related to teaching and counseling. These skills and understandings are focused on career/occupational education. They are related to classroom management, curriculum development and instruction.

5. A checklist of 59 skills and areas of knowledge related to administration and supervision. These leadership/administrative skills and understandings are focused on career/occupational education.

Administration of the Instrument

The needs assessment instrument was administered to 347 professional school personnel (elementary and secondary classroom teachers, guidance personnel, school administrators, and supervisors) randomly selected from districts throughout the Commonwealth of Massachusetts. Each educator was selected by using the random list of educators, supplied by the Research Department of the Massachusetts Teachers Association.

The Standard Error of a Percentage, associated with 68 percent probability, was used to determine the reliability of the sample. Therefore, for the sample of 347, drawn from approximately 40,000, there is a 68 percent chance that any percentage found in this sample will not miss the true percentage of the population by more than \( .0268 \) or \( .03 \) (3%).
More specifically, the method of making generalizations from sample attributes (e.g., percentages of responses favoring, opposing, etc., given statements, stating preferences on a continuum, etc.) follows.

The basic statistic needed for the generalizations is the Standard Error of a Percentage - shown by the letter "s" in the formula below:

\[ s = \sqrt{\frac{pq}{n}} \sqrt{1 - \frac{n}{N}} \]

\( p = \text{percent favoring a given item} \)
\( q = \text{percent not favoring (opposed to) a given item} \)
\( n = \text{sample size} \)
\( N = \text{size of population from which the sample has been randomly drawn} \)

In this study, \( n=347 \), \( N=\text{approximately 40,000} \), and \( p \) and \( q \) are each .50. These figures for \( p \) and \( q \) are each designated as .50. Also, by assigning \( p \) and \( q \) each as .50, the product of \( pq \) is .25. This is the greatest product possible when two fractions, which add to equal 1.0, are multiplied together. For example, if \( p=.60 \) and \( q=.40 \) the product \( pq=.24 \) which is less than .25. The net results is a conservative generalization. The fraction \( n/N \) when \( n=347 \) and \( N=40,000 \), is extremely small. Therefore, \( \sqrt{1 - \frac{n}{N}} \) is very close to 1.0 and will be regarded as such. The radical is only necessary when \( n/N \) is equal or greater than .05. Therefore, to sum up, \( s = \sqrt{\frac{.25}{347}} \) equals approximately .0268. As a standard error is associated with 68%
probably one can conclude that the sample of 347, drawn from approximately 40,000, "There is a 68% chance that any percentage found in the sample will not miss the true percentage in the population by more than .0268 or .03 (3%)." An example follows:

Suppose that on page 11 of the survey instrument 253 of the 347 respondents answered "yes" to question #3. Two-hundred and fifty-three is 73% of 347. The conclusion would be as follows: "There is a 68% chance that the sample percentage (73%) won't miss the true percentage in the population by more than 3%. There is a 68% chance that the true percentage in the population is 63% + 3% of between 70% and 76%. Also, there is a 100%-68% or 32% chance that the true population percentage is either less than 70% or more than 76% based on the 73% determined from the sample.

For some of the educators the questionnaires were delivered to the schools in which these professionals worked. For other educators, the instruments were mailed to the homes of the participants. One follow-up letter was sent to the participants who neglected to return the instrument.

A total of 316 usable questionnaires were returned by the participants. This represents a 91 percent rate of return. Among these usable questionnaires, 184 were from secondary teachers, 96 from elementary teachers, and 36 from administrators and supervisors.
Treatment and Analysis of the Data

The data were processed by the Research Division of the Massachusetts State Department of Education. This was accomplished through the use of the electronic computer.

The questions posed by the needs assessment instrument provided the framework for the analysis and treatment of the data collected. Whenever quantitative analyses of the data were made the investigator used percentages. Subjective statements made by the participants were categorized and used in the related findings section of this report.

From an analysis of the data, the following information concerning the elementary and secondary teachers was determined.

1. The extent to which the teachers are currently implementing career/occupational education goals in their classroom (school).

2. The extent to which the teachers want to implement career/occupational education goals in their classroom (school).

3. The percent of teachers who want additional professional training to help them implement career/occupational goals in their classroom (school).

4. For each skill or area of knowledge presented on a checklist, the percent of teachers who would like to gain the skill or understanding. These skills and understandings are related to career/occupational education. They are focused on classroom management, curriculum development, and instruction.

5. The percent of teachers who would participate in an advanced graduate program in order to gain the skills and understandings they have checked on the checklist.

6. The percent of teachers who are aspiring for a leadership/administrative position.
From the analysis of the data, the following information concerning the present and prospective school administrators/supervisors were determined.

1. The percent of present and prospective administrators and supervisors who want additional leadership/administrative training to help them implement career/occupational education goals.

2. For each skill or area of knowledge presented on a checklist, the percent of present and prospective administrators and supervisors who would like to gain the skill or understanding.

3. The percent of present and prospective administrators and supervisors who would participate in an advanced graduate program in order to gain the skills and understandings they have checked on the checklist.

The Procedures Used to Develop the Matrix Illustration Categories of Content and Behaviors for Sets of Objectives in Career Education

For this phase of the study, a matrix was developed. The matrix illustrates the categories of content and behaviors for sets of objectives in Career Education. In the following sections are presented (1) the development of the matrix; and (2) considerations governing the use of the matrix.
Development of the Matrix

A major data base searched in the preparation of the matrix was the ERIC materials (Educational Resources Information Center). In that part of the search, assistance was provided by the Curriculum Evaluation Dissemination Information Services, and by Service Development Corporation. A second base used was the data obtained from the needs assessment phase of the study. A third base was the extensive resources of the Massachusetts State Department of Education, especially of the Division of Occupational Information, were also of important assistance.

In addition there was correspondence with, and materials were forwarded from, the Career Education Division of the National Institute of Education, and the State Department of Education in Georgia, Texas, and Michigan.

One basic criterion governed the bibliographic search - namely, that source materials were useful to the extent that they included arrays of actual or proposed objectives for Career/Occupational Education. A predictably large variety of materials surfaced both in microfiche and hard copy; in addition to the standard text and periodical material, they included curriculum guides, evaluation reports, and project reports. Given the proliferation both of materials and sources in the field of Career/Occupational Education, it might be appropriate to identify that document which most completely satisfied the search criterion: it
was a one hundred-and fifty-page document titled Career Education Personnel Development/Ideas for University Planning, by L. A. McKinney and four co-authors. The book was published in July, 1975, at the Center for Vocational Education, Ohio State University, Columbus, Ohio.

In the final analysis, the following references were used in the development of the major categories of the matrix.


National Institute of Education, Requests for Proposals, December 5, 1975, "TV - Career Awareness Project."


Data from the Need Assessment Phase of the present study.

Considerations Governing the Use of the Matrix

Three major background considerations govern the use of the matrix.

A. No significance is intended in the order chosen
for the listing of the 17 categories. Certain routine assumptions, however, will be seen to have had some control - e.g., the preliminary importance of a theoretical framework, and the early importance of basic definitions.

B. The basic orientation is for CAGS candidates who are or will be teachers. It is nevertheless clear that with minor modification the matrix would help guide the work of those who are or will be working in administration.

C. The matrix, at category 14 (Stereotyping), makes specific provision for a concept as necessary as it is neglected - namely, the need for "unlearning." In designing a CAGS program, the emphasis is usually - and understandably - on the learning required in pursuit of the target competencies. But in matters of career education, certain destructive stereotypes are so pervasive that a conscious, explicit, and active policy of eradication is the only defensible academic posture.

The present use is the primary use intended for the matrix - the function, namely, of guiding selection and design of courses for a CAGS program in Career/Occupational Education. In that function, the matrix helps program designers (1) to identify kinds of goals not yet included;
(2) to insure that suitably diverse kinds of cognitive and affective behaviors are addressed; (3) to sequence courses; and (4) to guide administrative decisions involving such matters as placement exams, comprehensive exams, and theses.

Secondary uses of the matrix include the following:

1. It may be used to compare programs in Career/Occupational Education, to discover differences in emphasis and orientation.

2. It may be used to identify new categories of objectives that emerge as the field expands.

3. It may be used for recruitment purposes, to acquaint prospective candidates with the intended emphases of the certificate program.
Throughout the remainder of this report the term "teacher" refers to classroom teachers and counseling personnel.
CHAPTER IV
PRESENTATION AND ANALYSIS OF THE FINDINGS

In this chapter the data obtained from the study are presented and analyzed. In the following sections are presented (1) the findings related to the needs assessment phase; and (2) the findings related to the development of the matrix.

The Findings Related to the Needs Assessment Phase

In this section are presented the findings related to (1) the need for professional training focused on instruction; (2) the need for a C.A.G.S. program focused on instruction; (3) the need for a C.A.G.S. program; and (4) the skills and understandings needed.

The Findings Related to the Need for Professional Training Focused on Instruction

One major thrust of this phase of the study was to determine the need for additional in-service professional training programs focused on teaching skills, related to specifically identified goals in the area of career education.

In Table 1 are presented the teachers' responses related to the extent to which they are implementing career education concepts in the classroom. As the data in this table indicate, 33 percent of the respondents perceive they are currently implementing career education ideas, to either
<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement of the Item and Category of Teacher Respondents (N)</th>
<th>Very Great Extent</th>
<th></th>
<th>Moderate Extent</th>
<th></th>
<th>No Extent at All</th>
<th>&quot;Great&quot; to &quot;Very Great&quot; Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>To what extent are you currently implementing the ideas, presented in Charts 1-9, in your classroom (school)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total: Elementary and Secondary Teachers (N=278)</td>
<td>6</td>
<td>11</td>
<td>16</td>
<td>37</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Elementary Teachers (N=95)</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>43</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Secondary Teachers (N=183)</td>
<td>9</td>
<td>15</td>
<td>17</td>
<td>34</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>To what extent would you want to implement the ideas, presented in Charts 1-9, in your classroom (school)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total: Elementary and Secondary Teachers (N=278)</td>
<td>30</td>
<td>23</td>
<td>21</td>
<td>19</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Elementary Teachers (N=95)</td>
<td>23</td>
<td>24</td>
<td>18</td>
<td>28</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Secondary Teachers (N=183)</td>
<td>33</td>
<td>23</td>
<td>23</td>
<td>14</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
a great or very great extent. On the other hand, 74 percent of the respondents indicate they would like to implement career education ideas, to either a great or very great extent. These data indicate that at least 41 percent of the elementary and secondary teachers would like to increase the implementation of career education ideas in their classrooms, to the level of a great or very great extent.

It is interesting to note that 19 percent of the elementary teacher respondents perceive they are implementing career education ideas, to either a great or very great extent. On the other hand, 65 percent of the elementary teachers would like to implement these ideas, to either a great or very great extent. These data indicate that at least 46 percent of the elementary teachers would like to increase the implementation of career education ideas to the level of a great or very great extent.

In Table 2 are presented the data related to the teachers' responses focused on the need for additional professional training. These data indicate that 49 percent of the teachers included in the study definitely want additional training to help them implement specifically identified career education concepts. Thirty-eight percent of the teachers perceive they might want such training. These findings suggest that up to 87 percent of the teachers would participate in additional training focused on teaching skills related to career education.
### Table 2  Results of the Teachers' Responses to the Items Focused on the Need for Additional Professional Training Related to Teaching and Counseling

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement of the Item and Category of Teacher Respondents</th>
<th>Response Pattern and Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Results from the Teachers who Responded to the Item</td>
<td>Results Including the Total Number of Teacher Respondents a</td>
</tr>
<tr>
<td></td>
<td>(N) Yes Maybe No (N) Yes Maybe No</td>
<td></td>
</tr>
<tr>
<td>3. Do you want additional professional training to help you implement these ideas (the concepts set forth in Charts 1-9) in your classroom?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total: Elementary and Secondary Teachers (280) 49 38 13 (280) 49 38 13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elementary Teachers (K-6) (96) 35 47 18 (96) 35 47 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary Teachers (7-12) (184) 56 34 10 (184) 56 34 10</td>
<td></td>
</tr>
<tr>
<td>5. In order to gain the skills you have checked on the yellow pages, would you participate in a CAGS program if it were offered in your geographic area?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total: Elementary and Secondary Teachers (240) 30 43 27 (280) 25 37 38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elementary Teachers (K-6) (78) 21 55 24 (96) 17 45 38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary Teachers (7-12) (162) 34 37 29 (184) 30 33 37</td>
<td></td>
</tr>
</tbody>
</table>

a Including all the teachers who responded to any portion of the questionnaire.
The Findings Related to the Need for a C.A.G.S. Program
Focused on Instruction

A second aspect of this phase of the study focused on the determination of the need for a C.A.G.S. program (Certificate of Advance Graduate Study) focused on specifically identified teaching skills related to career education.

Again in Table 2, are presented data focused on the teachers' desire to participate in a C.A.G.S. program. These data indicate that 25 percent of the teachers included in the study would definitely participate in a C.A.G.S. program focused on specifically identified career education concepts. An additional 37 percent of the teachers indicate they might participate in such a program. These data suggest that up to 62 percent of the teachers would participate in a C.A.G.S. program focused on teaching skills related to career education, if it were offered in their geographic area.

The data in this table indicate that 30 percent of the secondary teachers, as opposed to 17 percent of the elementary teachers, would definitely participate in such an advanced graduate program.

The Findings Related to the Need for a C.A.G.S. Program
Focused on Leadership

A third major thrust of this phase of the study focused on the determination of the need for a C.A.G.S. program focused on specifically identified leadership/administrative skills related to career education.
In Table 3 are presented data related to the teachers' aspirations toward obtaining leadership positions. These data indicate that 19 percent of the teachers included in the study are definitely striving for leadership/administrative positions. An additional 18 percent of the teachers perceive they might strive for such a position in the future. These data indicate that 22 percent of the secondary teachers, as opposed to 12 percent of the elementary teachers are definitely striving for leadership/administrative positions.

In Table 4 are presented data focused on the teachers' and administrators' need for additional professional training related to leadership/administration. As is shown from these data, 22 percent of the teachers and administrators definitely want leadership training focused on specifically identified career education concepts. An additional 10 percent of the teachers and administrators indicate they might want such training.

These results suggest that up to 32 percent of the teachers and administrators would participate in leadership training focused on career education.

As is shown from the data in this table, 28 percent of the secondary personnel, as opposed to nine percent of the elementary personnel, definitely want leadership training focused on specifically identified career education concepts.

The data in Table 4 indicate that 18 percent of the
### Table 3

Results of the Teachers' Responses to the Item Focused on the Aspirations of the Respondents Toward Obtaining Leadership Positions in the Future

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement of the Item and Category of Teacher Respondents</th>
<th>Results from the Teachers who Responded to the Item</th>
<th>Results Including the Total Number of Teacher Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(N)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(#)</td>
<td></td>
</tr>
</tbody>
</table>

7. Are you aspiring for one of the following leadership/administrative positions in the future: Administrator, Supervisor, Director, Coordinator, or Department Chairman?

| Total: Elementary & Secondary Teachers | 261 | 20 | 19 | 61 | 280 | 19 | 18 | 63 |
| Elementary Teachers (K-6)             | 91  | 13 | 19 | 68 | 96  | 12 | 18 | 70 |
| Secondary Teachers (7-12)              | 170 | 24 | 19 | 57 | 184 | 22 | 18 | 60 |

*a Including all the teachers who responded to any portion of the questionnaire.*
<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement of the Item and Category of Respondents</th>
<th>Response Pattern and Percent of Responses</th>
<th>Results Including the Total Number of Teacher and Administrator Respondents a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Results from the Teachers &amp; Administrators who Responded to the Item</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(N)</td>
<td>Yes %</td>
</tr>
<tr>
<td>9.</td>
<td>Do you want additional leadership/administrative training to help you (in the role of an administrator, supervisor, department chairman, etc.) to implement the ideas presented, in Charts 1-9, in your school district?</td>
<td>(119)</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Total: Elementary and Secondary Teachers &amp; Administrators</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elementary Teachers &amp; Administrators</td>
<td>(27)</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Secondary Teachers &amp; Administrators</td>
<td>(92)</td>
<td>65</td>
</tr>
<tr>
<td>11.</td>
<td>In order to gain the skills you have checked on the green pages, would you participate in a CAGS program if it were offered in your geographic area?</td>
<td>(105)</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Total: Elementary and Secondary Teachers &amp; Administrators</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elementary Teachers &amp; Administrators</td>
<td>(23)</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Secondary Teachers &amp; Administrators</td>
<td>(82)</td>
<td>60</td>
</tr>
</tbody>
</table>

a Including all the teachers and administrators who responded to any portion of the questionnaire.
teachers and administrators would definitely participate in a C.A.G.S. program focused on specifically identified leadership/administrative skills, related to career education. An additional 11 percent of the teachers and administrators perceive they might participate in such a program.

These results suggest that up to 29 percent of the teachers and administrators would participate in a C.A.G.S. program in leadership/administration focused on career education, if it were offered in their geographic area.

As is shown from the data in this table, 22 percent of the secondary personnel, as opposed to eight percent of the elementary personnel, would definitely participate in such an advanced graduate program.

The Findings Related to the Conditions that Should Exit for a C.A.G.S. Program

The fourth major thrust of this phase of the study was to determine the conditions that should exist in the implementation of a C.A.G.S. program. More specifically, these findings relate to the following concerns: (1) the conditions that should exist in a C.A.G.S. program focused on teaching and counseling in order for the teachers to participate in such a program; and (2) the conditions that should exist in a C.A.G.S. program focused on leadership and administration, in order for the teachers and administrators to participate in such a program.

In the following sections are presented the findings
focused on these concerns.

The Findings Related to the Conditions that Should Exist for a Program Focused on Teaching and Counseling

In Table 5 are presented the teachers' reactions related to the conditions that should exist in a C.A.G.S. program focused on teaching. As the data in this table show, the teachers listed a total of 42 conditions that should exist in a C.A.G.S. program focused on teaching. These 42 conditions were developed through a categorization of 174 responses contributed by the 98 elementary and secondary teachers.

From these data, it is indicated that the eight conditions listed by the greatest number of teachers are as follows:

1. The courses must be offered within a reasonable traveling distance from home. Twenty percent of the responses fell into this category.
2. The tuition and other costs of the program must be reasonable. Eight percent of the responses fell into this category.
3. The experiences provided in the program must have immediate and practical use by my classroom teaching (6 percent of the responses).
4. The courses must be offered at a convenient time (6 percent of the responses).
5. I would have to complete my Masters degree first
<table>
<thead>
<tr>
<th>Statements Representing the Categories</th>
<th>Total: Elementary and Secondary Teachers</th>
<th>Elementary Teachers</th>
<th>Secondary Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The courses must be offered within a reasonable traveling distance from my home (convenient location).</td>
<td>(35) 20</td>
<td>(12) 16</td>
<td>(23) 24</td>
</tr>
<tr>
<td>2. The tuition and other costs of the program must be reasonable.</td>
<td>(16) 8</td>
<td>(6) 8</td>
<td>(6) 9</td>
</tr>
<tr>
<td>3. The experiences provided in the program must have immediate and practical application to my classroom teaching.</td>
<td>(13) 7</td>
<td>(7) 10</td>
<td>(6) 6</td>
</tr>
<tr>
<td>4. The courses must be offered at a convenient time (general).</td>
<td>(12) 6</td>
<td>(5) 5</td>
<td>(8) 9</td>
</tr>
<tr>
<td>5. I would have to complete my Masters degree first.</td>
<td>(11) 6</td>
<td>(9) 12</td>
<td>(2) 2</td>
</tr>
<tr>
<td>6. The program must be offered during the school year, in the evening or on week ends (possibly offer some summer sessions).</td>
<td>(11) 6</td>
<td>(6) 6</td>
<td>(8) 6</td>
</tr>
<tr>
<td>7. There must be a subsidized tuition plan.</td>
<td>(9) 5</td>
<td>(5) 4</td>
<td>(6) 6</td>
</tr>
<tr>
<td>8. I would like to have some time allotted during school hours to participate in the program (a leave from classroom duties).</td>
<td>(7) 4</td>
<td>(3) 4</td>
<td>(4) 4</td>
</tr>
<tr>
<td>9. The program must be highly individualized to meet my specific needs.</td>
<td>(5) 3</td>
<td>(2) 3</td>
<td>(3) 3</td>
</tr>
<tr>
<td>10. The program must be offered on a part-time basis.</td>
<td>(4) 1.5</td>
<td>(2) 3</td>
<td>(2) 2</td>
</tr>
<tr>
<td>11. The program must be relevant to teaching in the primary grades.</td>
<td>(4) 1.5</td>
<td>(4) 5</td>
<td>(0) 0</td>
</tr>
<tr>
<td>12. The courses must be conducted by experienced persons (a well-qualified staff) using effective instructional methods and suitable materials.</td>
<td>(4) 1.5</td>
<td>(0) 0</td>
<td>(4) 4</td>
</tr>
<tr>
<td>13. The courses must be built on specified performance objectives.</td>
<td>(4) 1.5</td>
<td>(2) 3</td>
<td>(2) 2</td>
</tr>
<tr>
<td>14. The program must be based on a logical and interrelated sequence.</td>
<td>(3) 1</td>
<td>(2) 3</td>
<td>(1) 1</td>
</tr>
<tr>
<td>15. The courses must be offered as part of an in-service program.</td>
<td>(3) 1</td>
<td>(1) 1</td>
<td>(2) 2</td>
</tr>
<tr>
<td>16. Credits must be accepted by my school district for vertical and horizontal increases (credit for increments).</td>
<td>(3) 1</td>
<td>(0) 0</td>
<td>(3) 3</td>
</tr>
<tr>
<td>17. There must be an opportunity to transfer post-Masters credits into the program.</td>
<td>(3) 1</td>
<td>(0) 0</td>
<td>(2) 2</td>
</tr>
<tr>
<td>18. The courses should be condensed into a small number of full-day sessions.</td>
<td>(2) 1</td>
<td>(0) 0</td>
<td>(2) 2</td>
</tr>
<tr>
<td>19. I would like to apply for veterans benefits through the program.</td>
<td>(2) 1</td>
<td>(0) 0</td>
<td>(2) 2</td>
</tr>
</tbody>
</table>

*a Item number six on the white pages of the questionnaire.

b Ninety eight elementary and secondary respondents contributed a total of 179 responses for this item.

c Forty three elementary respondents contributed a total of 77 responses for this item.

d Fifty five secondary respondents contributed a total of 97 responses for this item.
<table>
<thead>
<tr>
<th>Number and Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made in Each Category</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Representing the Categories</th>
<th>Total: Elementary and Secondary Teachers</th>
<th>Elementary Teachers</th>
<th>Secondary Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Number) %</td>
<td>(Number) %</td>
<td>(Number) %</td>
<td>(Number) %</td>
</tr>
<tr>
<td>44. The courses must be geared specifically for the elementary school level.</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>45. I would be interested if I stay in the field of education.</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>46. There must be a relationship established between the program and business/industry.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>47. The program must have a humanistic thrust.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>48. The program must be related to the Arts; and allow for a heavy concentration of music.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>49. The required courses must be offered back-to-back on the same evening.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>50. The program must incorporate the &quot;real work&quot; concept, not simulated concepts.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>51. The program must deal with innovative approaches, especially the systems approach to instruction.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>52. The courses must be homogeneously grouped including guidance persons and teachers.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>53. The courses must be needed for guidance certification.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>54. I am not sure at this time. I need more information.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>55. The participants of the program must be dedicated and enthusiastic.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>56. These ideas should be introduced at the elementary school level.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>57. I would like to have a person demonstrate those techniques in my classroom.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>58. It would depend on my classload.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>59. My colleagues and I would have to agree that such a program would be beneficial to our curriculum</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60. The courses must replace obligatory attendance at other workshops required by the school district.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>61. This is not an area I would choose to study beyond my masters degree.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>62. The program should be offered at the Masters level.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>63. The program must be interdisciplinary in nature.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>64. The program must contain substantial orientation toward special needs students.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>65. The need for career education at the elementary level must be recognized by the school district.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>66. The materials for actual teaching must be made available.</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**TOTAL** 174 100 77 100 97 100
(6 percent of the responses).

6. The program must be offered during the school year in the evening on week days - possibly some summer sessions (6 percent of the responses).

7. There must be a subsidized tuition plan (5 percent of the responses).

8. I would like to have some time allotted during school hours to participate in the program (4 percent of the responses).

The Findings Related to the Conditions that Should Exist for a Program Focused on Leadership/Administration

In Table 6 are presented the teachers' and administrators' reactions related to the conditions that should exist in a C.A.G.S. program focused on administration and leadership. As is shown from the data in this table, the teachers and administrators listed a total of 17 conditions that should exist in a C.A.G.S. program focused on administration. These 17 conditions were developed through a categorization of 66 responses contributed by 38 elementary and secondary teachers and administrators.

From these data, it is indicated that the six conditions listed by the greatest number of teachers and administrators are as follows:

1. The courses must be offered within a reasonable traveling distance from my home (30 percent of the responses).
### Table 6

#### The Result of the Categorization of the Teachers' and Administrators' Responses Made to the Open-Ended Item Related to the Conditions That Should Exist in a C.A.G.S. Program Focused on Administration and Supervision

<table>
<thead>
<tr>
<th>Statements Representing the Categories</th>
<th>Number and Percent of Responses Made in Each Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total: Elementary &amp; Secondary Teachers &amp; Administrators</td>
</tr>
<tr>
<td></td>
<td>(Number)</td>
</tr>
<tr>
<td>1. The courses must be offered within a reasonable traveling distance from my home (convenient location).</td>
<td>(20)</td>
</tr>
<tr>
<td>2. The tuition and other costs of the program must be reasonable.</td>
<td>(9)</td>
</tr>
<tr>
<td>3. There must be a subsidized tuition plan.</td>
<td>(6)</td>
</tr>
<tr>
<td>4. The program must be offered during the school year, in the evening during week days (possibly offer some summer sessions).</td>
<td>(5)</td>
</tr>
<tr>
<td>5. I would like to have some time allotted during school hours to participate in the program (a leave from classroom duties).</td>
<td>(4)</td>
</tr>
<tr>
<td>6. The courses must be offered at a convenient time (general).</td>
<td>(3)</td>
</tr>
<tr>
<td>7. The courses must be conducted by experienced persons (a well-qualified staff).</td>
<td>(2)</td>
</tr>
<tr>
<td>8. The program must be highly individualized to meet my specific needs.</td>
<td>(2)</td>
</tr>
<tr>
<td>9. The courses must replace obligatory attendance at other workshops required by the school district.</td>
<td>(2)</td>
</tr>
<tr>
<td>10. The program must be offered on a part-time basis.</td>
<td>(2)</td>
</tr>
<tr>
<td>11. There must be an opportunity to transfer post-Masters credits into the program.</td>
<td>(2)</td>
</tr>
<tr>
<td>12. There must be the opportunity to continue into a Doctorate program.</td>
<td>(2)</td>
</tr>
<tr>
<td>13. I would have to complete my Masters degree first.</td>
<td>(1)</td>
</tr>
<tr>
<td>14. The courses should be condensed into a small number of full-day sessions.</td>
<td>(1)</td>
</tr>
<tr>
<td>15. The program must be related to the &quot;real world&quot; of work and/or leisure.</td>
<td>(1)</td>
</tr>
<tr>
<td>16. I would like to know that there will be jobs available for my major field of study.</td>
<td>(1)</td>
</tr>
<tr>
<td>17. I would not want to devote a whole graduate program to career education.</td>
<td>(1)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>(66)</td>
</tr>
</tbody>
</table>

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a Item number twelve on the white pages of the questionnaire.

b Thirty eight elementary and secondary respondents contributed a total of 66 responses for this item.

c Ten elementary respondents contributed a total of 15 responses for this item.

d Twenty eight secondary respondents contributed a total of 51 responses for this item.
2. The tuition and other costs of the program must be reasonable (13 percent of the responses).

3. There must be a subsidized tuition plan (12 percent of the responses).

4. The program must be offered during the school year in the evening during the week days - possibly some summer sessions (7 percent of the responses).

5. I would like to have some time allotted during school hours to participate in the program (6 percent of the responses).

6. The courses must be offered at a convenient time (4 percent of the responses).

Summary

The results presented above indicate that for the administrators and/or teachers to participate in either of the CAGS program, the following conditions should exist:

1. The courses should be offered at a convenient location so that the participants do not have to travel very far to attend the sessions.

2. The cost to the participants must be very reasonable. Some amount of monetary subsidization should be provided to the participants.

3. The courses should be offered on week days during the school year. The sessions should
start after 4:00 P.M. Some of the courses could be offered during the summer months.

4. Whenever possible, there should be some leave time allotted by the school districts for the teachers and administrators to participate in the program.

Two additional conditions should exist for the teachers to participate in a CAGS program focused specifically on teaching and counseling. These are (1) the experiences provided during the courses must have immediate and practical application to the participants' classroom teaching; and (2) a number of the teachers must complete their Masters degree before they could participate in the CAGS program.

Findings Related to the Skills and Understandings Needed

The fifth major thrust of this phase of the study was to determine the specific skills and understandings, related to career education, needed by the teachers and administrators. More specifically, these findings relate to the following concerns: (1) the specific instructional skills and understandings, related to career education, needed by the teachers; and (2) the specific leadership/administrative skills and understandings, related to career education, needed by the teachers and administrators.

In the following sections are presented the findings focused on these concerns.
Findings Related to the Instructional Skills and Understandings Needed by the Teachers

From a list of 65 items, the teachers selected the specific skills and areas of knowledge they would like to gain. These skills and understandings are related to career education; and are focused on teaching. The results of these selections are presented in Table 7. These data indicate that for 46 items, 33 percent or more of the teachers would like to gain the specified skill or understanding.

For 14 categories of skills and areas of knowledge, 50 percent or more of the teachers indicate they need the skills and understandings. These categories are described below.

1. **Teaching Achievement Motivation:** In this category are included the skills and understandings necessary to motivate the students to set high standards and to pursue these standards energetically (67 percent of the respondents selected this item).

2. **Student Awareness of Career Development Concepts:** For this category the teacher understands and applies practical strategies to assist students in gaining an awareness and acceptance that (a) self-understanding is vital to career decisions and work performance (66 percent selected this item); (b) career education prepared man for the world of work (60 percent selected this
<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement of the Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total Elementary &amp; Secondary Teachers N=280</td>
</tr>
<tr>
<td>1. (7)</td>
<td>(Teaching Achievement Motivation) Understand and apply practical strategies for motivating the majority of my students to set high standards and to pursue these standards energetically.</td>
<td>(1) 67</td>
</tr>
<tr>
<td>2. (54)</td>
<td>(Student Awareness of Career Development Concepts) Understand and apply practical strategies to assist students gain an awareness and acceptance that self-understanding is vital to career decisions and work performance.</td>
<td>(2) 66</td>
</tr>
<tr>
<td>3. (4)</td>
<td>(Inter-disciplinary Planning) Understand and apply practical strategies for integrating my subject content with the subject content of other disciplines.</td>
<td>(3) 63</td>
</tr>
<tr>
<td>4. (14)</td>
<td>(World of Work) Be knowledgeable concerning the future of work and projected changes in the work force.</td>
<td>(9.5) 61</td>
</tr>
<tr>
<td>5. (59)</td>
<td>(Learning Goals for Career Development) Understand and apply practical strategies to assist each student to assess his/her self characteristics as they relate to occupational roles.</td>
<td>(6.5) 61</td>
</tr>
<tr>
<td>6. (58)</td>
<td>(Student Awareness of Career Development Concepts) Understand and apply practical strategies to assist students gain an awareness and acceptance that career education prepares man for the world of work.</td>
<td>(6) 60</td>
</tr>
<tr>
<td>7. (3)</td>
<td>(Multi-media) Develop and/or use a variety of multi-media approaches in my classroom.</td>
<td>(7) 59</td>
</tr>
<tr>
<td>8. (32)</td>
<td>(Career Games and Kits) Develop and/or use career games and kits related to my subject content.</td>
<td>(8.5) 58</td>
</tr>
<tr>
<td>9. (35)</td>
<td>(Community Resources) Understand and apply practical strategies for using the total community as a learning laboratory and using community resource persons in my classroom.</td>
<td>(8.5) 58</td>
</tr>
<tr>
<td>10. (8)</td>
<td>(Communications) Understand and apply practical skills to assist students to freely communicate information, ideas, attitudes and emotions effectively, commensurate with today's and tomorrow's needs (listening, reading, and writing).</td>
<td>(10) 57</td>
</tr>
</tbody>
</table>

a The rank order of the item, as determined by the number of times the item was selected by the respondents included in the designated category of teachers, namely, elementary and secondary, elementary, or secondary.

b The percent of the total number of teachers responding to any portion of the questionnaire.

c The percent of the total number of elementary teachers responding to any portion of the questionnaire (grades K-6).

d The percent of the total number of secondary teachers responding to any portion of the questionnaire (grades 7-12).
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<tbody>
<tr>
<td></td>
<td>(Item Number)</td>
<td>(Rank) %</td>
</tr>
<tr>
<td>11. (65)</td>
<td>(Learning Goals for Career Development) Understand and apply practical strategies to assist each student to acquire a concept of self as a productive person in an achievement-oriented society.</td>
<td>(11) 56</td>
</tr>
<tr>
<td>12. (17)</td>
<td>(Student Goal Setting) Understand and apply practical strategies to assist students to realistically assess personal attributes as part of setting life goals.</td>
<td>(12) 55</td>
</tr>
<tr>
<td>13. (24)</td>
<td>(Creativity) Understand and apply practical strategies to assist students in developing and demonstrating creative problem-solving behaviors.</td>
<td>(13) 55</td>
</tr>
<tr>
<td>14. (11)</td>
<td>(Self-concept) Understand and apply practical strategies to assist students to develop and maintain a healthy self-concept.</td>
<td>(14) 56</td>
</tr>
<tr>
<td>15. (2)</td>
<td>(Learning Centers) Develop and use &quot;learning centers&quot; in my classroom.</td>
<td>(15) 54</td>
</tr>
<tr>
<td>16. (52)</td>
<td>(Student Awareness of Career Development Concepts) Understand and apply practical strategies to assist students gain an awareness and acceptance that society reflects the creative force of work.</td>
<td>(16) 52</td>
</tr>
<tr>
<td>17. (1)</td>
<td>(Career Development) Gain a practical understanding of the theories of career development.</td>
<td>(17.5) 52</td>
</tr>
<tr>
<td>18. (10)</td>
<td>(Teacher Behavior in the Classroom) Increase or improve my response repertoire, questioning skills, presentation skills, and student participation skills.</td>
<td>(17.5) 52</td>
</tr>
<tr>
<td>19. (60)</td>
<td>(Learning Goals for Career Development) Understand and apply practical strategies to assist each student to explore broad occupational areas in terms of opportunities, potential satisfactions, required roles of workers and other related dimensions.</td>
<td>(19) 51</td>
</tr>
<tr>
<td>20. (9)</td>
<td>(Value Clarification and Student Decision-making) Understand and apply practical strategies to assist students to a) clarify for themselves what they value, and b) make and implement decisions consistent with the values the students have identified for themselves.</td>
<td>(20.5) 51</td>
</tr>
<tr>
<td>21. (55)</td>
<td>(Student Awareness of Career Development) Understand and apply practical strategies to assist students gain an awareness and acceptance that man's livelihood depends upon the production, distribution and consumption of goods and services.</td>
<td>(20.5) 51</td>
</tr>
<tr>
<td>22. (63)</td>
<td>(Learning Goals for Career Development) Understand and apply practical strategies to assist each student to possess an awareness that the individual's role in work is tied to the well-being of the community.</td>
<td>(22) 51</td>
</tr>
<tr>
<td>23. (29)</td>
<td>(Individualized Instruction - classroom management) Understand and apply practical classroom management strategies for providing students with a variety of learning activities from which they can choose.</td>
<td>(23) 50</td>
</tr>
<tr>
<td>Item Number</td>
<td>Statement of the Item</td>
<td>Total Elementary &amp; Secondary Teachers N=280</td>
</tr>
<tr>
<td>-------------</td>
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<td>----------------------------------------------</td>
</tr>
<tr>
<td>24. (6)</td>
<td>(Human Relations for Teachers) Understand and apply practical skills for effectively relating to self, to other individuals and to groups.</td>
<td>(24) 49</td>
</tr>
<tr>
<td>25. (33)</td>
<td>(Work Experience) Provide real and/or simulated work experience to my subject content.</td>
<td>(25) 49</td>
</tr>
<tr>
<td>26. (31)</td>
<td>(Manipulatives) Provide &quot;hands-on&quot; experiences for students in my subject content.</td>
<td>(26.5) 49</td>
</tr>
<tr>
<td>27. (62)</td>
<td>(Learning Goals for Career Development) Understand and apply practical strategies to assist each student to understand modern work environments.</td>
<td>(26.5) 46</td>
</tr>
<tr>
<td>28. (39)</td>
<td>(Human Development - Occupational Education) Be knowledgeable concerning human development as it affects occupational education at various levels.</td>
<td>(28) 46</td>
</tr>
<tr>
<td>29. (16)</td>
<td>(Career/Occupational Education Concepts) Gain a practical understanding of career/occupational education concepts and a knowledge of the exemplary career education programs currently in existence.</td>
<td>(29) 45</td>
</tr>
<tr>
<td>30. (54)</td>
<td>(Learning Goals for Career Development) Understand and apply practical strategies to assist each student to demonstrate effective decision-making skills in striving to achieve occupational goals.</td>
<td>(30) 45</td>
</tr>
<tr>
<td>31. (15)</td>
<td>(World of Work) Gain a general knowledge of the &quot;World of Work&quot; and an orientation to and understanding of the socio-psychological principles related to the &quot;World of Work.&quot;</td>
<td>(31) 45</td>
</tr>
<tr>
<td>32. (55)</td>
<td>(Student Awareness of Career Development Concepts) Understand and apply practical strategies to assist students gain an awareness and acceptance that man and technology are continually interacting in his work.</td>
<td>(32) 44</td>
</tr>
<tr>
<td>33. (25)</td>
<td>(Individualized Instructional Units - general) Develop and implement learning activity packages focused on my subject content.</td>
<td>(36.5) 44</td>
</tr>
<tr>
<td>34. (25)</td>
<td>(Individualized Instructional Units - Career Development) Develop and implement learning activity packages focused on an integration of concepts in my subject content with career development concepts.</td>
<td>(36.5) 44</td>
</tr>
<tr>
<td>35. (20)</td>
<td>(Behavioral Modification) Understand and apply effective behavior modification techniques with students.</td>
<td>(35) 44</td>
</tr>
<tr>
<td>36. (19)</td>
<td>(Instructional Units) Develop and implement instructional units incorporating an effective use of large group, small group, and independent study techniques.</td>
<td>(36.5) 43</td>
</tr>
<tr>
<td>37. (20)</td>
<td>(Learning Styles) Understand and apply practical strategies for matching various instructional procedures with the individual student's learning styles.</td>
<td>(36.5) 43</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>39. (38)</td>
<td>(Leadership-Simulations) Assist students in my subject(s) to develop effective decision-making and leadership skills through the use of simulations and role playing experiences.</td>
<td>(38) 42</td>
</tr>
<tr>
<td>39. (18)</td>
<td>(Team Teaching) Understand and implement practical classroom management strategies for team teaching.</td>
<td>(39.5) 40</td>
</tr>
<tr>
<td>40. (23)</td>
<td>(Leadership: Skills and Films) Understand and use films to assist students develop effective leadership skills.</td>
<td>(39.5) 40</td>
</tr>
<tr>
<td>41. (5)</td>
<td>(Evaluation) Develop and/or use student criterion-referenced tests related to my course content.</td>
<td>(41.5) 39</td>
</tr>
<tr>
<td>42. (61)</td>
<td>(Learning Goals for Career Development) Understand and apply practical strategies to assist each student to explore the psychological meaning of work and its value in the human experience.</td>
<td>(41.5) 39</td>
</tr>
<tr>
<td>43. (45)</td>
<td>(Social Studies) Understand and apply practical strategies for incorporating career development concepts into the teaching of social studies.</td>
<td>(41) 34</td>
</tr>
<tr>
<td>44. (38)</td>
<td>(Instructional Units) Develop and implement vocational/technical instructional units based on job description, task analysis, performance objectives and criterion examination.</td>
<td>(44) 34</td>
</tr>
<tr>
<td>45. (13)</td>
<td>(Theories of Learning - Career Development) Understand and apply the principles and theories of human learning to the design and implementation of career education curricula.</td>
<td>(45.5) 33</td>
</tr>
<tr>
<td>46. (45)</td>
<td>(English/Language Arts) Understand and apply practical strategies for incorporating career development concepts into the teaching of English/Language Arts.</td>
<td>(45.5) 33</td>
</tr>
<tr>
<td>47. (22)</td>
<td>(Humanistic Education) Gain a practical understanding of humanistic education techniques.</td>
<td>(47) 31</td>
</tr>
<tr>
<td>48. (28)</td>
<td>(Performance Objectives - Career Development) Develop and implement performance objectives focused on an integration of concepts in my subject content with career development concepts (cognitive, affective, and psychomotor).</td>
<td>(48) 31</td>
</tr>
<tr>
<td>49. (64)</td>
<td>(Mathematics) Understand and apply practical strategies for incorporating career development concepts into the teaching of mathematics.</td>
<td>(49) 30</td>
</tr>
<tr>
<td>50. (27)</td>
<td>(Performance Objectives - General) Develop and implement performance objectives for my subject content.</td>
<td>(50) 29</td>
</tr>
<tr>
<td>51. (12)</td>
<td>(Learning Theory - General) Understand and apply the principles and theories of human learning to my classroom situation.</td>
<td>(51) 29</td>
</tr>
<tr>
<td>52. (36)</td>
<td>(Continuous Progress Education) Understand and apply practical strategies for developing, implementing and monitoring a continuous progress instructional program in my subject(s).</td>
<td>(52) 28</td>
</tr>
<tr>
<td>Item Number</td>
<td>Statement of the Item</td>
<td>Total: Elementary &amp; Secondary Teachers N=280</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>53. (40)</td>
<td>Humanities Understand and apply practical strategies for incorporating career development concepts into the teaching of the humanities.</td>
<td>(53) 26</td>
</tr>
<tr>
<td>54. (41)</td>
<td>Science Understand and apply practical strategies for incorporating career development concepts into the teaching of science.</td>
<td>(54) 24</td>
</tr>
<tr>
<td>55. (37)</td>
<td>Open Classroom Understand and apply practical strategies for developing, implementing and monitoring an &quot;open classroom&quot; instructional program.</td>
<td>(55) 23</td>
</tr>
<tr>
<td>56. (21)</td>
<td>Transactional Analysis Understand and apply the principles of transactional analysis in my classroom situation.</td>
<td>(56) 23</td>
</tr>
<tr>
<td>57. (51)</td>
<td>Industrial Arts Understand and apply practical strategies for incorporating career development concepts into the teaching of industrial arts.</td>
<td>(57) 22</td>
</tr>
<tr>
<td>58. (42)</td>
<td>Fine Arts Understand and apply practical strategies for incorporating career development concepts into the teaching of fine arts.</td>
<td>(58) 19</td>
</tr>
<tr>
<td>59. (47)</td>
<td>Vocational/Technical Courses Understand and apply practical strategies for incorporating career development concepts into the teaching of vocational/technical courses.</td>
<td>(59.5) 17</td>
</tr>
<tr>
<td>60. (48)</td>
<td>Health Education Understand and apply practical strategies for incorporating career development concepts into the teaching of health education.</td>
<td>(59.5) 17</td>
</tr>
<tr>
<td>61. (50)</td>
<td>Home Economics Understand and apply practical strategies for incorporating career development concepts into the teaching of home economics.</td>
<td>(61) 16</td>
</tr>
<tr>
<td>62. (52)</td>
<td>Business and Distributive Education Understand and apply practical strategies for incorporating career development concepts into the teaching of business and distributive education.</td>
<td>(62) 15</td>
</tr>
<tr>
<td>63. (46)</td>
<td>Physical Education Understand and apply practical strategies for incorporating career development concepts into the teaching of physical education.</td>
<td>(63) 12</td>
</tr>
<tr>
<td>64. (49)</td>
<td>Foreign Language Understand and apply practical strategies for incorporating career development concepts into the teaching of foreign language.</td>
<td>(64) 9</td>
</tr>
<tr>
<td>65. (53)</td>
<td>Other Courses Understand and apply practical strategies for incorporating career development concepts into the teaching of other courses, not listed in the questionnaire.</td>
<td>(65) 7</td>
</tr>
</tbody>
</table>
item); (c) society reflects the creative force of work (52 percent); and (d) man's livelihood depends upon the production, distribution and consumption of goods and services (51 percent).

3. **Inter-disciplinary Planning:** This category includes the skills and understandings necessary to integrate the teacher's subject content with the content of other disciplines (63 percent of the respondents selected this item).

4. **World of Work:** The understandings included in this category involve the possession of a knowledge of the future of work and projected changes in the work force (61 percent selected this item).

5. **Learning Goals for Career Development:** For this category the teacher understands and applies practical strategies for helping the student to (a) assess his/her interests, abilities, values, needs and other self characteristics, as they relate to occupational roles and life goals (61 percent selected this item); (b) to acquire a concept of self as a productive person in an achievement oriented society (56 percent); (c) to explore broad occupational areas in terms of opportunities, potential satisfactions, required roles of workers and other related dimensions
(51 percent); and (d) to possess an awareness that the individual's role in work is tied to the well-being of the community (51 percent).

This category also includes the areas of "Student Goal Setting" (55 percent); "Self-concept" (54 percent); and "Values Clarification" (51 percent).

6. **Multimedia**: In this category are included the skills and understandings necessary for developing and using a variety of multi-media approaches in the classroom (59 percent).

7. **Career Games and Kits**: In this category are included the skills and understandings necessary for developing and using career games and kits, related to the teacher's subject content (58 percent).

8. **Community Resources**: For this category the teacher understands and applies practical strategies for using the total community as a learning laboratory, and using community resource persons in the classroom (58 percent).

9. **Communications**: For this category the teacher understands and applies practical skills to help students to freely communicate information, ideas, attitudes and emotions effectively; commensurate with today's and tomorrow's needs—listening, reading and writing (57 percent).
10. **Creativity:** This category includes the skills and understandings necessary to assist students in developing and demonstrating creative problem-solving behaviors (55 percent).

11. **Learning Centers:** For this category the teacher develops and uses "learning centers" in his/her classroom (54 percent).

12. **Theories of Career Development:** The understanding in this category involve the possession of a practical knowledge of the theories of career development (52 percent).

13. **Teacher Behavior in the Classroom:** For this category the teacher increases or improves his/her response repertoire, questioning skills, presentation skills, and student participation skills (52 percent).

14. **Individualized Instruction - Classroom Management:** For this category the teacher understands and applies practical classroom management strategies for providing students with a variety of learning activities from which the students can choose (50 percent).

Fourteen additional categories were selected by 33 percent or more of the teachers. These categories are as follows: (15) Human Relations for Teachers, (16) Work Experience, (17) The Use of Manipulatives, (18) Theories of

Findings Related to the Administrative Skills and Understandings Needed by the Teachers and Administrators

From a list of 59 items, the teachers and administrators selected the specific skills and understandings they would like to gain. These skills and understandings are related to career/occupational education; and are focused on administration and supervision. The results of these selections are presented in Table 8. They show that for 24 items, 20 percent or more of the respondents indicated they would like to gain the skill or understanding.

The ten categories selected by the greatest percent of the teachers and administrators are as follows:

1. **Community Resources**: For this category the administrator/supervisor understands and applies practical strategies for developing and implementing a comprehensive program for using the total community as a learning laboratory; and for using the total community as a
<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement of the Item</th>
<th>Rank of the Item and Percent of Teachers and Administrators Checking the Item</th>
</tr>
</thead>
</table>
| 1. (10)    | (Community Resources) Understand and apply practical strategies for developing and implementing a comprehensive program for utilizing the total community as a learning laboratory, using community resource persons in the school (including work-study programs and cooperative education programs). | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (1.5) 23  
|             |                                                                                                                                                                | (2.5) 26  |
| 2. (45)    | (School Management; Building Level) Understand and apply practical strategies for the effective operation of the school within the law and safety standards. | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |
| 3. (43)    | (Personnel Leadership) Understand and apply practical strategies for effectively recruiting, selecting and assigning professional and non-professional staff members. | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |
| 4. (44)    | (Leadership in Community Relations) Understand and apply practical strategies for identifying community needs, translating these needs into programs, assessing the community's response to the programs and raising the community's expectations of the educational programs. | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |
| 5. (27)    | (Teacher Behavior in the Classroom) Assist teachers in increasing or improving their response repertoire, questioning skills, presentation skills, and student participation skills. | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |
| 6. (51)    | (Personnel Leadership; Staff Morale) Understand and apply practical strategies for initiating, maintaining and continually promoting good staff morale. | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |
| 7. (26)    | (Innovative Practices - General) Assist teachers in initiating and maintaining such innovative practices as flex classes, open-space instruction, continuous progress education, humanistic education, learning centers, interdisciplinary planning, and others. | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |
| 8. (5)     | (World of Work) Be knowledgeable concerning the future of work and projected changes in the work force.                                                          | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |
| 9. (4)     | (Theories of Learning - Career Development) Understand and apply the principles and theories of human learning to the design and implementation of career education curricula. | (N=316)  
|             |                                                                                                                                                                | (1.5) 24  
|             |                                                                                                                                                                | (2.5) 26  |

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a The rank order of the item, as determined by the number of times the item was selected by the respondents included in the designated category of teachers and administrators; namely, elementary and secondary, elementary, or secondary.

b The percent of the total number of teachers and administrators responding to any portion of the questionnaire.

c The percent of the total number of elementary teachers and administrators responding to any portion of the questionnaire (grades K-6).

d The percent of the total number of secondary teachers and administrators responding to any portion of the questionnaire (grades 7-12).
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</tr>
</thead>
<tbody>
<tr>
<td>10. (42)</td>
<td>(Instructional Leadership) Understand and apply practical strategies for initiating and maintaining the environment for curriculum improvement.</td>
<td>(9.5) 21</td>
<td>(11.5) 18</td>
<td>(9.5) 23</td>
</tr>
<tr>
<td>11. (33)</td>
<td>(Work Experience) Assist teachers in providing real and/or simulated work experience for the students in their courses.</td>
<td>(11.5) 21</td>
<td>(30.5) 15</td>
<td>(8) 23</td>
</tr>
<tr>
<td>12. (91)</td>
<td>(Instructional Leadership) Understand and apply practical strategies for initiating and maintaining the environment for instructional improvement and change.</td>
<td>(11.5) 21</td>
<td>(4.5) 20</td>
<td>(21.5) 21</td>
</tr>
<tr>
<td>13. (15)</td>
<td>(Special Education - Mainstreaming) Understand and apply practical strategies for implementing instructional programs for the exceptional child, including mainstreaming.</td>
<td>(13.5) 20</td>
<td>(30.5) 15</td>
<td>(9.5) 23</td>
</tr>
<tr>
<td>14. (26)</td>
<td>(Creativity) Assist teachers in developing and demonstrating creative problem-solving behaviors.</td>
<td>(13.5) 20</td>
<td>(8.5) 19</td>
<td>(21.5) 21</td>
</tr>
<tr>
<td>15. (48)</td>
<td>(Planning, Programming and Budgeting Systems) Understand and apply practical strategies for initiating, implementing and maintaining an educational planning, programming and budgeting system (PPBS).</td>
<td>(13.5) 20</td>
<td>(30.5) 15</td>
<td>(9.5) 23</td>
</tr>
<tr>
<td>16. (18)</td>
<td>(Leadership Style) Understand and apply practical strategies for identifying my own leadership style and initiating effective leadership behavior.</td>
<td>(16.5) 20</td>
<td>(11.5) 20</td>
<td>(21.5) 21</td>
</tr>
<tr>
<td>17. (12)</td>
<td>(Proposal Development) Develop proposals for state and federal programs.</td>
<td>(16.5) 20</td>
<td>(30.5) 15</td>
<td>(12.5) 22</td>
</tr>
<tr>
<td>18. (31)</td>
<td>(Career Cans and Kits) Assist teachers in developing/using career cases and kits related to their subject content.</td>
<td>(16.5) 20</td>
<td>(3) 21</td>
<td>(33.5) 19</td>
</tr>
<tr>
<td>19. (7)</td>
<td>(Career/Occupational Education Concepts) Gain a practical understanding of career/occupational education concepts and a knowledge of the exemplary career education programs currently in existence.</td>
<td>(19.5) 20</td>
<td>(14.5) 17</td>
<td>(21.5) 21</td>
</tr>
<tr>
<td>20. (21)</td>
<td>(Delegating and Use of Time) Use my time effectively and develop the skill of delegating.</td>
<td>(19.5) 20</td>
<td>(30.5) 15</td>
<td>(15.5) 22</td>
</tr>
<tr>
<td>21. (25)</td>
<td>(Performance Objectives - Career Development) Assist teachers in developing and implementing performance objectives focused on an integration of concepts in their subject content, with career development concepts.</td>
<td>(19.5) 20</td>
<td>(39.5) 14</td>
<td>(12.5) 22</td>
</tr>
<tr>
<td>22. (46)</td>
<td>(School Management; Building Level) Understand and apply practical strategies for the effective fiscal operation of the school.</td>
<td>(19.5) 20</td>
<td>(23.5) 16</td>
<td>(20) 21</td>
</tr>
<tr>
<td>23. (52)</td>
<td>(Instructional Leadership) Understand and apply practical strategies for providing for continuous assessment of instructional processes and programs.</td>
<td>(19.5) 20</td>
<td>(30.5) 15</td>
<td>(15.5) 22</td>
</tr>
<tr>
<td>24. (59)</td>
<td>(Staff Personnel Administration) Understand and apply practical strategies for the district-wide programming and monitoring of staff personnel functions.</td>
<td>(19.5) 20</td>
<td>(39.5) 14</td>
<td>(12.5) 22</td>
</tr>
<tr>
<td>25. (9)</td>
<td>(Innovative Practices - School-wide) Understand and apply practical strategies to initiate and implement such innovative practices as flexible modularizing, the nongraded school, continuous progress education and others.</td>
<td>(25.5) 19</td>
<td>(14.5) 17</td>
<td>(27.5) 20</td>
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<tr>
<td>26. (58)</td>
<td>(Curriculum and Instruction) Understand and apply practical strategies for the district-wide programming and monitoring of instruction and curriculum functions.</td>
<td>(25.5) 19</td>
<td>(18.5) 17</td>
<td>(27.5) 20</td>
</tr>
<tr>
<td>27. (1)</td>
<td>(Career Development) Gain a practical understanding of the theories of career development.</td>
<td>(27.5) 19</td>
<td>(14.5) 17</td>
<td>(33.5) 19</td>
</tr>
<tr>
<td>28. (2)</td>
<td>(Value Clarification and Decision-making) Understand and apply practical strategies to (a) clarify for myself what I value, and (b) make and implement decisions consistent with these identified values.</td>
<td>(27.5) 19</td>
<td>(14.5) 17</td>
<td>(33.5) 19</td>
</tr>
<tr>
<td>29. (11)</td>
<td>(Human Development - Occupational Education) Be knowledgeable concerning human development as it affects occupational education at various age levels.</td>
<td>(27.5) 19</td>
<td>(39.5) 14</td>
<td>(21.5) 21</td>
</tr>
<tr>
<td>30. (13)</td>
<td>(Involvement of Other Agencies) Plan for the active cooperation of various agencies such as industry, government, medicine and the like.</td>
<td>(27.5) 19</td>
<td>(23.5) 16</td>
<td>(30.5) 20</td>
</tr>
<tr>
<td>31. (30)</td>
<td>(Learning Styles) Assist teachers to apply strategies for matching various instructional procedures and learning modes with individual student's learning rate, interests, abilities and learning styles.</td>
<td>(27.5) 19</td>
<td>(14.5) 17</td>
<td>(33.5) 19</td>
</tr>
<tr>
<td>32. (32)</td>
<td>(Manipulatives) Assist teachers in providing &quot;hands-on&quot; experiences for students in their courses.</td>
<td>(27.5) 19</td>
<td>(14.5) 17</td>
<td>(33.5) 19</td>
</tr>
<tr>
<td>33. (47)</td>
<td>(Personnel Management; Legal) Understand and apply practical strategies for evaluating staff and maintaining appropriate personnel records.</td>
<td>(27.5) 19</td>
<td>(51.5) 12</td>
<td>(15.5) 22</td>
</tr>
<tr>
<td>34. (53)</td>
<td>(Instructional Leadership) Understand and apply practical strategies for assisting the instructional staff in providing appropriate instructional programs for each student.</td>
<td>(27.5) 19</td>
<td>(23.5) 16</td>
<td>(30.5) 20</td>
</tr>
<tr>
<td>35. (23)</td>
<td>(Basic Concepts of Vocational Education) Gain a practical understanding of basic concepts of vocational education.</td>
<td>(35.5) 18</td>
<td>(46.5) 13</td>
<td>(21.5) 21</td>
</tr>
<tr>
<td>36. (36)</td>
<td>(Course Content and Career Development Concepts) Assist teachers in incorporating career development concepts into the teaching of their subject content.</td>
<td>(35.5) 18</td>
<td>(14.5) 17</td>
<td>(41.5) 19</td>
</tr>
<tr>
<td>37. (50)</td>
<td>(Implementing Career Education) Understand and apply practical strategies for executing the action steps for implementing a comprehensive career/occupational education program.</td>
<td>(37.5) 18</td>
<td>(39.5) 14</td>
<td>(30.5) 20</td>
</tr>
<tr>
<td>38. (56)</td>
<td>(Pupil Personnel Administration) Understand and apply practical strategies for the district-wide programming and monitoring of pupil personnel functions.</td>
<td>(37.5) 18</td>
<td>(46.5) 13</td>
<td>(27.5) 20</td>
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<tr>
<td>39. (28)</td>
<td>(Instructional Units) Assist teachers in developing and implementing instructional units incorporating an effective use of large group, small group and independent study techniques.</td>
<td>(39.5) 18</td>
<td>(39.5) 14</td>
<td>(33.5) 19</td>
</tr>
<tr>
<td>40. (29)</td>
<td>(Individualized Instruction - Classroom Management) Assist teachers in implementing practical-classroom management strategies for providing students with a variety of learning activities from which they can choose.</td>
<td>(39.5) 18</td>
<td>(8.5) 19</td>
<td>(51.5) 17</td>
</tr>
<tr>
<td>41. (40)</td>
<td>(Self Concept - Students) Assist teachers in applying practical strategies for enhancing the self concept of their students.</td>
<td>(39.5) 18</td>
<td>(23.5) 16</td>
<td>(45.5) 18</td>
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<tr>
<td>Item Number</td>
<td>Statement of the Item</td>
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<tr>
<td>42. (18)</td>
<td>(Communication Skills - Supervisor) Develop effective communication skills (listening, speaking and writing).</td>
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<tr>
<td>43. (19)</td>
<td>(Creative Problem-solving) Understand and apply practical strategies for enhancing individual and group creative problem-solving.</td>
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<td>44. (27)</td>
<td>(School-Community Relations) Understand and apply practical strategies for the district-wide programming and monitoring of school-community relations functions.</td>
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<tr>
<td>45. (28)</td>
<td>(Communications - Students) Assist teachers in teaching students to freely communicate information, ideas, attitudes and emotions effectively (listening, reading, speaking and writing).</td>
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<tr>
<td>46. (37)</td>
<td>(Multi-media) Assist teachers in making proper use of media and technology in the teaching-learning process.</td>
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<tr>
<td>47. (14)</td>
<td>(Human Relations - Supervisor) Understand and apply practical strategies for effectively relating to self, to other individuals and to groups.</td>
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<tr>
<td>48. (35)</td>
<td>(Instructional Units) Assist teachers in developing and implementing vocational/technical instructional units based on a job description, task analysis, performance objectives and criterion examination.</td>
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<tr>
<td>49. (49)</td>
<td>(Mutual Goal Setting: School Management-by-objectives) Understand and apply practical strategies for initiating, implementing and maintaining a performance objectives approach to teacher appraisal.</td>
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<tr>
<td>50. (34)</td>
<td>(Simulations - Leadership Skills) Assist teachers in developing simulations and role playing experiences for developing student leadership skills.</td>
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<tr>
<td>51. (38)</td>
<td>(Human Relations - Teachers) Assist teachers in effectively relating to themselves, to other individuals and to groups.</td>
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<tr>
<td>52. (22)</td>
<td>(Organizational Development) Gain a practical understanding of the socio-psychological aspects of organisational development, especially as it relates to the school system.</td>
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<tr>
<td>53. (55)</td>
<td>(Finance and Business Management) Understand and apply practical strategies for the district-wide programming and monitoring of finance and business management functions.</td>
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<tr>
<td>54. (17)</td>
<td>(Conflict Resolution) Understand and apply successful conflict resolution strategies.</td>
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<tr>
<td>55. (20)</td>
<td>(Leadership - Group Behavior) Understand and apply practical strategies for identifying helpful and dysfunctional behaviors while working in groups.</td>
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<tr>
<td>56. (8)</td>
<td>(Transactional Analysis) Understand and apply the principles of transactional analysis in my role as a supervisor.</td>
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<tr>
<td>57.</td>
<td>(59)</td>
<td>School Plant and Services</td>
<td>understand and apply practical strategies for the district-wide programming and monitoring of school plant and services functions.</td>
<td>(56.5)</td>
</tr>
<tr>
<td>58.</td>
<td>(59)</td>
<td>World of Work</td>
<td>Gain a general knowledge of the &quot;World of Work&quot; and an orientation to the understanding of the social psychological principles related to the &quot;World of Work&quot;.</td>
<td>(58)</td>
</tr>
<tr>
<td>59.</td>
<td>(59)</td>
<td>Learning Theory - general</td>
<td>Gain a practical understanding of the theories of learning.</td>
<td>(59)</td>
</tr>
</tbody>
</table>
learning laboratory; and for using community resource persons in the school (24 percent of the teachers and administrators selected this item). This category includes the areas of "Work Experience" (20 percent selected this item); Work Study Programs; and Cooperative Education Programs.

2. **School Management: Law and Safety Standards:** This category includes the skills and understandings necessary for the effective operation of the school within the law and safety standards (24 percent of the teachers and administrators selected this item).

3. **Personnel Leadership:** In this category are included the skills and understandings necessary for effectively recruiting, selecting and assigning professional and nonprofessional staff members (23 percent selected this item).

4. **Leadership in Community Relations:** For this category the administrator understands and applies practical strategies for identifying community needs, translating these needs into programs, assessing the community's response to the programs and raising the community's expectations of the educational programs (23 percent selected this item).
5. **Teacher Behavior in the Classroom:** This category includes the skills and understandings necessary for helping teachers to increase or improve their response repertoire, questioning skills, presentation skills, and student participation skills (22 percent selected this item).

6. **Personnel Leadership - Staff Morale:** For this category the administrator/supervisor understands and applies practical strategies for initiating, maintaining and continually promoting good staff morale (22 percent selected this item).

7. **Innovative Practices - General:** This category includes the skills and understandings necessary for helping teachers to initiate and maintain such innovative practices as flexible grouping, team teaching, open space instruction, continuous progress education, humanistic education, learning centers, interdisciplinary planning, and others (22 percent selected this item).

8. **World of Work:** The understandings in this category involve the possession of a knowledge of the future of work and projected changes in the work force (22 percent selected this item).

9. **Theories of Learning - Career Development:** For this category the administrator/supervisor under-
stands and applies the principles and theories of human learning to the design and implementation of career education curricula (21 percent selected this item).

10. **Instructional Leadership:** For this category the administrator/supervisor understands and applies practical strategies for initiating and maintaining the environment for curriculum and instructional improvement and change (21 percent selected this item).


**Findings Related to the Development of the Matrix**

The objective for this phase of the study was to develop a matrix illustrating categories of content and behaviors for sets of objectives in career education. Again
the references finally used are as follows:


Data from the Needs Assessment Phase.

The following briefly explain the categories finally included in the matrix, and present cited examples of broad cognitive and affective objectives within the categories.

1. THEORY AND HISTORY

The category includes objectives involving comprehension of existing psychological and philosophical theories, differentiation among theories, determination of the implications of the differences, and synthesis and evaluation of theories; and historical antecedents.
2. INSTRUCTIONAL METHODOLOGY

Objectives in this category include use of varied instructional materials, techniques, and approaches of particular relevance to career education.

Develop and use "learning centers" in my classroom. (Needs Assessment).

3. CURRICULUM DEVELOPMENT AND INTEGRATION

These objectives include the selection and design of curricula, and integration of curricula across different content fields.

Initiate curriculum revision designed to integrate academic, general, and vocational education into an expanded set of educational opportunities available to all students (OEIO).

4. CAREER TYPOLOGIES

These attended to the variety of career classification systems, including the important concept of career clusters.

Career education prepares man for the world of work...There is a wide variety of careers which may be classified in various ways.

Identify occupational clusters. (Odburt, 113).

5. CAREER DEFINITION

The goals of this category involve the identification of the tasks, roles, responsibilities, and rewards of a particular career, and the prerequisite
skills and credentials.

Understand and apply practical strategies to assist each student... explore broad occupational areas in terms of opportunities, potential satisfactions, required roles of workers, and other related dimensions. (Needs Assessment).

6. CAREER PROJECTIONS

Here the goals include concern for monitoring the world of work to predict the advent, growth, and decline of careers, and the consequent employment opportunities within them.

Be knowledgeable concerning the future of work and projected changes in the work force. (Needs Assessment).

7. EMPLOYMENT SEARCH AND EMPLOYABILITY

This category includes objectives which involve job-finding skills, and ability to maximize one's attractiveness as a job candidate. Activities within the category would involve assignment of priorities to different search procedures (e.g., wants-ads, employment agencies), and the acquisition of employability skills (e.g., interviews, completion of application forms, resume preparation).

Describe employment procedures used in hiring personnel. (McKinney, et al., 17)

8. COMMUNITY RESOURCE USE

These goals involve abilities to identify and orchestrate community resources -
people, places, and things - to assist students in career awareness, and provide occupational models.

Identify and recruit resource persons in the employment community to assist in the school program. (Hansen, 3.)

The category attends to the matter of field experience either on-site or simulated. Included also are goals concerning identification of, and practice with, work habits that are productive and appropriate to the given career.

Arrange observation, activities, or part-time employment for students and school staff to help them learn more about occupations and work settings. (Hansen, 4.)

Provide career exploratory experiences to help students gain an understanding of worker characteristics and work requirements. (Hansen, 5.)

The category includes matters of identification of one's career values and capacities, and assessing options in light of both. Key definitions follow:

"Values: beliefs concerning the status of occupations and what an individual considers important with respect to aspects of work and the pace of work in adult life."
"Self-Concept: beliefs an individual holds about the abilities he or she has, and how successful he or she would be at an occupation or occupational role."

(NIE, 1)

Provide experiences to help students increase their depth of understanding of personal capabilities, interests, and possible limitations. (Hansen, 5.)

Understand and apply practical strategies to assist students to (a) clarify for themselves what they value, and (b) make and implement decisions consistent with the values the students have identified for themselves. (Needs Assessment).

Identify/exhibit attitudes and behaviors toward careers which enhance student (K-12) self-concept development. (McKinney et al., 26.)

Objectives in this category include ability to identify various sources of career information and distinguish their strengths and weaknesses. Included also are goals that concern the design, scheduling, and conduct of information searches.

Devise and/or locate methods and materials designed to help pupils understand and appreciate the career implications of the subject matter being taught. (OE, 8.)

The category involves objectives which attend to the selection, construction,
and interpretation of instruments, and the use of procedures, for assessing initial states and changes in individuals and career education programs.

Develop and/or use student criterion-referenced tests related to my course content. (Needs Assessment).

Evaluate student performances with instrumentation items based upon the stated career education goals and objectives and determine correlations between objectives and performance. (McKinney, et al., 58.)

This category concerns objectives which address understanding and implementing the legal framework of career education. Two kinds of legal concerns are intended: those relating to a particular career (e.g., longshoreman, pharmacist), as well as to management of career education activities (e.g., field trips, work experience). Because governmental law, guidelines and regulations apply, in one way or another to all careers, the objectives here are of particular importance. Union and professional associations and organizations contribute also to the need for concern about the legal aspects of career education.
14. STEREOTYPING

Demonstrate a knowledge of the basic principles of school law, specific legal mandates and decisions of the courts... (Needs Assessment).

This category includes objectives which address the "unlearning" of destructive stereotypes, particularly sex and race stereotypes. It includes also goals concerned with alerting people to the variety of ways such stereotypes are manifest.

Develop experiences which will avoid occupational stereotypes, including glamorous occupations and sex-role stereotypes. (Hansen, 7.)

15. PARENT EDUCATION

Here the objectives involve the enlisting and encouraging of parental support for children's interest in various careers. It includes also goals which seek to involve parents in curricular work (discussions, workshops, newsletters, etc.)

The home and family members with whom pupils reside will... maximize, to the fullest extent possible, career development options and opportunities for themselves and for their children. (OE, 10).

Help parents understand and encourage the career development process as it relates to their children. (Hansen, 4.)
16. **PROFESSIONAL ROLE**

The category includes objectives which touch on the professional roles and responsibilities of those who work in the field of career education. The willingness to practice as consumer and contributor in the field includes such activities as membership in related associations, attendance at conferences, symposia, etc., monitoring professional literature, and, to the extent possible, publication of material in the field.

Clarify developmental tasks and roles of persons implementing career education. (McKinney, et al., 33.)

17. **ENTERPRISE AND INNOVATIONS**

The category alerts the framers of objectives to the need for avoiding exclusive attention to already existing careers, and already existing patterns within careers. The intention is to foster discovery of new kinds of careers, and initiative and independence in the performance of work in a chosen career.

(The entrepreneurial category of goals has been largely neglected in the literature. For example, the inclusive list of over one hundred goals in McKinney, et al., 1975, is silent on this matter. The emphasis instead is on the set of all existing careers, and on extrapolations from that set.)
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In this chapter are presented (1) the summary, conclusions, and recommendations from the needs assessment phase of the study, (2) the recommended matrix, and (3) the recommended program.

The Needs Assessment Phase

This phase of the study was conducted to determine the staff development needs of the teachers and administrators throughout the Commonwealth of Massachusetts. More specifically, the three major objectives were:

1. To determine the need for additional in-service professional training programs focused on teaching skills related to specifically identified concepts in the area of career/occupational education.

2. To determine the need for a CAGS program focused on specifically identified teaching skills related to career/occupational education.

3. To determine the need for a CAGS program focused on specifically identified leadership/administrative skills related to career/occupational education.
Questionnaires were sent to 347 professional school personnel randomly selected from public school districts throughout the Commonwealth. A total of 316 usable questionnaires were returned representing a 91 percent rate of return.

Summary of the Major Findings

The following is a summary of the major findings:

1. Up to 87 percent of the teacher respondents would participate in additional training focused on teaching skills related to career education.

2. Up to 62 percent of the teacher respondents would participate in a CAGS program focused on teaching skills related to career education, if it were offered in their geographic area.

3. Up to 37 percent of the teacher respondents are striving for administrative/leadership positions.

4. Up to 32 percent of the teacher and administrator respondents would participate in leadership training focused on career education.

5. Up to 29 percent of the teacher and administrator respondents would participate in a CAGS program in leadership/administration focused on career education, if it were offered in their geographic area.

6. The eight conditions (listed by the greatest number of teacher respondents) that should exist in a CAGS program focused on teaching are:
a. The courses must be offered within a reasonable traveling distance from home. Twenty percent of the responses fell into this category.

b. The tuition and other costs of the program must be reasonable. Eight percent of the responses fell into this category.

c. The experiences provided in the program must have immediate and practical use to my classroom teaching (6 percent of the responses).

d. The courses must be offered at a convenient time (6 percent of the responses).

e. I would have to complete my Masters degree first (6 percent of the responses).

f. The program must be offered during the school year in the evening on week days - possibly some summer sessions (6 percent of the responses).

g. There must be a subsidized tuition plan (5 percent of the responses).

h. I would like to have some time allotted during school hours to participate in the program (4 percent of the responses).

7. The six conditions (listed by the greatest number of teacher and administrator respondents) that should exist in a CAGS program focused on
administration/leadership are as follows:

a. The courses must be offered within a reasonable traveling distance from my home (30 percent of the responses).

b. The tuition and other costs of the program must be reasonable (13 percent of the responses).

c. There must be a subsidized tuition plan (12 percent of the responses).

d. The program must be offered during the school year, in the evening during the week days - possibly some summer sessions (7 percent of the responses).

e. I would like to have some time allotted during school hours to participate in the program (6 percent of the responses).

f. The courses must be offered at a convenient time (4 percent of the responses).

8. For 14 categories of skills and areas of knowledge, 50 percent or more of the teacher respondents indicated they need the skills and understandings. These categories are:

a. Teaching Achievement Motivation (67 percent of the respondents selected the item in this category).

b. Student Awareness of Career Development
Concepts (51 to 66 percent of the respondents selected the four items in this category).

c. Interdisciplinary Planning (63 percent of the respondents selected the item in this category).

d. World of Work (61 percent of the respondents).

e. Learning Goals for Career Development (51 to 61 percent of the respondents selected the 4 items in this category).

f. Multi-media (59 percent).

g. Career Games and Kits (58 percent).

h. Community Resources (58 percent).

i. Communications (57 percent).

j. Creativity (55 percent).

k. Learning Centers (54 percent).

l. Theories of Career Development (52 percent).

m. Teacher Behavior in the Classroom (52 percent).

n. Individualized Instruction (50 percent).

9. Fourteen additional categories were selected by 33 percent or more of the teachers. These categories are as follows: (15) Human Relations for Teachers, (16) Work Experience, (17) the Use of Manipulatives, (18) Theories of Human Development and Learning as They Relate to Career Development, (19) Career/Occupational Education Concepts, (20) Individualized Instructional Units, (21) Behavioral Modification, (22) Learning Styles, (23)

10. The ten categories of skills and understandings, focused on leadership/administration selected by the greatest percent of teachers and administrators are:

a. Community Resources (20 to 24 percent of the teacher and administrator respondents selected the two items in this category).

b. School Management: Law and Safety Standards (24 percent).

c. Personnel Leadership (22 to 23 percent of the respondents selected the two items in this category).

d. Leadership in Community Relations (23 percent).

e. Teacher Behavior in the Classroom (22 percent).

f. Innovative Practices - General (22 percent).

g. World of Work (22 percent).

h. Theories of Learning - Career Development (21 percent).

i. Instructional Leadership (21 percent).

11. Twelve additional categories were selected by 20 percent of the teachers and administrators.

Conclusions

From the major findings of this phase of the study, the following conclusions are set forth:

1. There is a very great need for additional in-service professional training programs, focused on teaching skills related to specifically identified career/occupational education concepts.

2. There is a substantial need for
   a. a CAGS program focused on teaching skills related to career/occupational education.
   b. a CAGS program focused on leadership/administrative skills related to career/occupational education.

3. The conditions that should exist in a CAGS program in order for the teachers and administrators to participate in such a program are as follows:
a. The courses should be offered at a convenient location for the participants. The traveling distance should not be too great.

b. The cost to the participants must be reasonable. Some amount of monetary subsidization should be provided to the participants.

c. The courses should be offered on week days during the school year. The sessions should start after 4:00 P.M. Some of the courses could be offered during the summer months.

d. Whenever possible, there should be some leave time allotted by the school districts for the participants of the program.

e. Two additional conditions should exist for the teachers to participate in a CAGS program focused specifically on teaching and counseling. These are (1) the experiences provided during the courses must have immediate and practical application to the participants' classroom teaching, and (2) a number of the teachers must complete their Masters degree before they could participate in the CAGS program.

4. The specific instructional skills and understandings, related to career/occupational education, needed by the teachers are as follows:
a. **Teaching Achievement Motivation:** In this category are included the skills and understandings necessary to motivate the students to pursue these standard energetically.

b. **Student Awareness of Career Development Concepts:** For this category the teacher understands and applies practical strategies to assist students in gaining an awareness and acceptance that (a) self-understanding is vital to career decisions and work performance, (b) career education prepares man for the world of work, (c) society reflects the creative force of work, and (d) man's livelihood depends upon the production, distribution and consumption of goods and services.

c. **Inter-disciplinary Planning:** This category includes the skills and understandings necessary to integrate the teacher's subject content of other disciplines.

d. **World of Work:** The understandings included in this category involve the possession of a knowledge of the future of work and projected changes in the work force.

e. **Learning Goals for Career Development:** For this category the teacher understands and applies practical strategies for helping the
student to (a) assess his/her interests, abilities, values, needs and other self characteristics, as they relate to occupational roles and life goals, (b) to acquire a concept of self as a productive person in an achievement oriented society, (c) to explore broad occupational areas in terms of opportunities, potential satisfactions, required roles of workers and other related dimensions, and (d) to possess an awareness that the individual's role in work is tied to the well-being of the community. This category includes the areas of "Student Goal Setting," "Self-concept," and "Values Clarification."

f. **Multi-media:** In this category are included the skills and understandings necessary for developing and using a variety of multi-media approaches in the classroom.

g. **Career Games and Kits:** In this category are included the skills and understandings necessary for developing and using career games and kits, related to the teacher's subject content.

h. **Community Resources:** For this category the teacher understands and applies practical
strategies for using the total community as a learning laboratory, and using community resource persons in the classroom.

i. Communications: For this category the teacher understands and applies practical skills to help students to freely communicate information, ideas, attitudes and emotions effectively; commensurate with today's and tomorrow's needs - listening, reading and writing.

j. Creativity: This category includes the skills and understandings necessary to assist students in developing and demonstrating creative problem-solving behaviors.

k. Learning Centers: For this category the teacher develops and uses "learning centers" in his/her classroom.

l. Theories of Career Development: The understandings in this category involve the possession of a practical knowledge of the theories of career development.

m. Teacher Behavior in the Classroom: For this category the teacher increases or improves his/her response repertoire, questioning skills, presentation skills, and student participation skills.
n. **Individualized Instruction - Classroom Management**: For this category the teacher understands and applies practical classroom management strategies for providing students with a variety of learning activities from which the students can choose.

5. Fourteen additional categories needed by the teachers are as follows: (a) Human Relations for Teachers, (b) Work Experience, (c) the Use of Manipulatives, (d) Theories of Human Development and Learning as They Relate to Career Development, (e) Career/Occupational Education Concepts, (f) Individualized Instructional Units, (g) Behavioral Modification, (h) Learning Styles, (i) Leadership Development for Students, (j) Team Teaching, (k) Evaluation, (l) Career Development Concepts for Social Studies, (m) Vocational/Technical Instructional Units, and (n) Career Development Concepts for English/Language Arts.

6. The specific leadership/administrative skills and understandings, related to career/occupational education, needed by the teachers and administrators are as follows:

a. **Community Resources**: For this category the administrator/supervisor understands and applies practical strategies for developing
and implementing a comprehensive program for using the total community as a learning laboratory, and for using community resource persons in the school. This category includes the areas of "Work Experience," Work Study Programs, and Cooperative Education Programs.

b. School Management: Law and Safety Standards: This category includes the skills and understandings necessary for the effective operation of the school within the law and safety standards.

c. Personnel Leadership: In this category are included the skills and understandings necessary for effectively recruiting, selecting and assigning professional and nonprofessional staff members.

d. Leadership in Community Relations: For this category the administrator understands and applies practical strategies for identifying community needs, translating these needs into programs, assessing the community's response to the programs and raising the community's expectations of the educational programs.

e. Teacher Behavior in the Classroom: This category includes the skills and understandings necessary for helping teachers to
increase or improve their response repertoire, questioning skills, presentation skills, and student participation skills.

f. Personnel Leadership - Staff Morale: For this category the administrator/supervisor understands and applies practical strategies for initiating, maintaining and continually promoting good staff morale.

g. Innovative Practices - General: This category includes the skills and understandings necessary for helping teachers to initiate and maintain such innovative practices as flexible grouping, team teaching, open space instruction, continuous progress education, humanistic education, learning centers, interdisciplinary planning, and others.

h. World of Work: The understandings in this category involve the possession of a knowledge of the future of work and projected changes in the work force.

i. Theories of Learning - Career Development: For this category the administrator/supervisor understands and applies the principles and theories of human learning to the design and implementation of career education curricula.
j. **Instructional Leadership:** For this category the administrator/supervisor understands and applies practical strategies for initiating and maintaining the environment for curriculum and instructional improvement and change.

7. Twelve additional categories focused on leadership/administration needed by the teachers and administrators are as follows: (a) Special Education - Mainstreaming, (b) Creativity, (c) Planning, Programming and Budgeting Systems, (d) Leadership Style, (e) Proposal Development, (f) Career Games and Kits, (g) Career/Occupational Education Concepts, (h) Delegating and the Use of Time, (i) Performance Objectives - Career Development, (j) School Management: Fiscal Operation, (k) Program Assessment, and (l) Staff Personnel Administration.

**Recommendations**

Based on the findings and conclusions of this phase of the study the following recommendations are set forth:

1. The state colleges, in cooperation with the Division of Occupational Education (Massachusetts State Department of Education), should work with surrounding school districts to provide in-service training programs. These programs should focus on specifically identified teaching and counseling
skills related to career/occupation.
In-Service sessions should be developed, concentrating on the following skill categories:
(a) Teaching Achievement Motivation, (b) Student Awareness of Career Development Concepts, (c) Interdisciplinary Planning, (d) Knowledge of the World of Work, (e) Learning Goals for Career Development, (f) the Use of Multi-media, (g) Career Games and Kits, (h) the Use of Community Resources, (i) Communication Skills for Students, (j) Creativity, (k) the Use of Learning Centers, (l) Theories of Career Development, (m) Teacher Behavior in the Classroom, and (n) Individualized Instruction - Classroom Management.
An effort should be made to provide professional and technical resources for the state colleges to enable these institutions to accomplish this endeavor. This effort should be coordinated by the Central Office of the State College System, with the cooperation of the State Department of Education.
2. The state colleges throughout the Commonwealth should offer a CAGS program focused on career/occupational education. The components of the program should focus on specifically identified skills and understandings related to (a) class-
room management, curriculum development, and instruction, and (b) leadership and administration.

The list of specific instructional and leadership skills and understandings needed by the teachers and administrators, set forth in this report, should be used in the design of the major components of the CAGS program. The development of these major components should be coordinated by the Central Office of the State College System. In addition, the Central Office should coordinate the efforts to provide the state colleges with a network of professional and technical resources for the actual implementation of the program.

The following conditions should exist in the implementation of the program.

a. The courses should be offered at a convenient location for the participants. The traveling distance should not be too great.

b. The cost to the participants must be reasonable. Some amount of monetary subsidization should be provided to the participants.

c. The courses should be offered on week days during the school year. The sessions should start after 4:00 P.M. Some of the courses could be offered during the summer months.
Whenever possible, there should be some leave time allotted by the school districts for the participants of the program.

The Recommended Matrix

By combining the results from the analysis done for the matrix categories, and the findings from the needs assessment phase of the study, the initial development of six core courses has been made. These courses appear to be appropriate for the CAGS program focused on instruction, and the program focused on leadership/administration. These six core courses are as follows:

I. Theories of Career Development

II. Curriculum Development and Instructional Methodology

III. Research and Analysis of Occupational and Career Programs

IV. Appraisal of Career Aptitudes and Attitudes and Evaluation of Programs

V. Societal and Cultural Influences in Career Education

VI. Practicum and Seminar

The following are brief descriptions of the proposed core courses:

I. TITLE: Theories of Career Development

COURSE DESCRIPTION: Students will define existing psychological and philosophical theories regarding career/occupational education, differ-
entiate among the theories and determine the implications of the differences. Students will synthesize and evaluate the theories. Students will develop a career education rationale through identifying and understanding career education principles and career related skills.

II. TITLE: Curriculum Development and Instructional Methodology

COURSE DESCRIPTION: Students will study, select and design curricula and initiate curriculum revision across different content fields (academic, general, and vocational). Students will develop and use varied instructional materials, techniques and approaches which have relevance to career/occupational education. Students will study/apply appropriate and varied interpersonal skills necessary for planning and implementing career/occupational education experiences.

III. TITLE: Research and Analysis of Occupational and Career Programs

COURSE DESCRIPTION: In this course students will be expected to analyze the world of work to predict the advent, growth and decline of careers, and the consequent employment opportunities within them. Students will research and analyze various employability skills for selected careers and develop ability in maximizing their attrac-
tiveness as job candidates. Students will identify various sources of career information and determine their strengths and weakness. They will be expected to develop skill in designing, scheduling and conducting information searches. All students will be encouraged to explore and discover new kinds of careers.

IV. TITLE: Appraisal of Career Aptitudes and Attitudes and Evaluation of Program Effectiveness

COURSE DESCRIPTION: This course is designed to develop skills in: (1) identifying techniques and evaluation design in career/occupational education and (2) administering, scoring and interpreting evaluation instruments. Further, participants will be expected to analyze and utilize career/occupational assessment data relative to student aptitude and attitudes for instructional planning. This course will also incorporate equality concepts and roles in career/occupational education as they relate to past and present race, occupational and sex stereotyping.

V. TITLE: Societal and Cultural Influences in Career/Occupational Education

COURSE DESCRIPTION: This course focuses on the development and analysis of knowledge and understanding regarding the varied societal segments
within communities. Each participant will be expected to identify the relationships that exist between segments of society and career, education, law, family, lifestyles, sex roles and culture. Further, the participants will design and implement programs in career/occupational education that will integrate learning experiences with respect to education, careers, law, culture, home, family and lifestyles.

VI. TITLE: Practicum and Seminar Course

COURSE DESCRIPTION: The practicum and Seminar course is designed to provide students with field-based career exploratory experiences - involvement and interaction which occur between participants and school, community, organizations and institutions. Through the seminar component participants will also have the opportunity to synthesize their practicum experiences in a theoretical framework.

Presentation of the Matrix

In Figure 1 is presented a matrix delimiting the categories of content and the core courses in which they appear.

The following are suggested objectives to be achieved in each of the proposed core courses. The objectives are by no means all inclusive. However, they do serve to illustrate
the specific knowledge and competencies to be developed in a C.A.G.S. Career/Occupational Education Program. The numbers enclosed in parenthesis correlate to the content listed in the Matrix in Figure 1.

I. Theories of Career Development

Define existing psychological and philosophical theories, explain the historical antecedents of career development. (1)
Evaluate the theories. (1)
Compare, contrast, and evaluate the theories and determine the implications of the differences. (1)
Identify a working definition of career education. (1, 5)
Delineate basic principles that underlie career education. (1)
Clarify developmental tasks and roles of persons implementing career education. (1, 6)
Differentiate between career education and career development. (1, 5)
<table>
<thead>
<tr>
<th>Categories of Content and Behaviors</th>
<th>Theories of Career Development</th>
<th>Curriculum Development and Instruction Methodology</th>
<th>Research and Analysis of Occupational and Career Programs</th>
<th>Appraisals of Career Aptitude and Attitudes and Evaluation</th>
<th>Societal and Cultural Influences in Career Education</th>
<th>Practicum and Seminar</th>
</tr>
</thead>
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<tr>
<td>1. Theory</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>2. Instructional Methodology</td>
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<tr>
<td>3. Curriculum Development and Integration</td>
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<td>X</td>
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<td>X</td>
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<tr>
<td>4. Career Typologies</td>
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<td>5. Career Definition</td>
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<tr>
<td>6. Career Projections</td>
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<td>7. Employment Search and Employability</td>
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<tr>
<td>8. Community Resource Use</td>
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</tbody>
</table>

Figure 1. A matrix delineating the categories of content and proposed core courses in which they appear.
<table>
<thead>
<tr>
<th>Categories of Content and Behaviors</th>
<th>I</th>
<th>II</th>
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<tr>
<td>9. Work Experience</td>
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<td>11. Information Retrieval</td>
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<td>12. Evaluation</td>
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<td>X</td>
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<td>13. Legal Interface</td>
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<td>14. Stereotyping</td>
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<td>X</td>
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<td>15. Parent Education</td>
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<td>X</td>
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<td>16. Professor Role</td>
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<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>17. Enterprise and Innovation</td>
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<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Figure 1. (Continued)
I. Theories of Career Development (Continued)

Understand and apply practical strategies to assist each student to...

- explore broad occupational areas in terms of opportunities
- potential satisfaction
- required roles of workers
- other related dimension

(1, 4, 5, 10)

Formulate a career education rationale through identifying and understanding of career education principles and career related skills. (1)

Students will analyze factors that modify and influence child growth and development and delineate those factors that relate to the world of work. (1, 7)

II. Curriculum Development and Instructional Methodology

Identify and develop understandings of career education concepts, career education roles, and the cooperation needed to
implement career education as an integral part of educational experiences within the community. (3, 5, 6)

Identify career education goals and objectives based on career development concepts appropriate to a child/adolescent growth and development. (1, 3)

Identify occupational clusters. (3, 4, 7)

Develop curriculum goals and objectives in the cognitive, affective, and psychomotor domains which pertain to career education. (3)

Develop long-/short-range program plans for implementing career education (K-12) into curriculum. (2, 3)

Evaluate and revise existing instructional programs (K-12) such that career education goals and objectives are specified for and infused in various grade levels. (2, 3)
Initiate curriculum revision designed to integrate academic, general and vocational education into an expanded set of educational opportunities available to all students. (3)

Develop skills needed to utilize assessment techniques in the evaluation of career education activities (3, 12)

Develop leadership skills for implementing career education in the school/community. (16)

Understand and apply practical strategies to assist each student to...explore broad occupational areas in terms of opportunities, potential satisfaction, required roles of workers, and other related dimension. (5, 9)

Develop learning activities which infuse/integrate career awareness, career exploration, career preparation concepts into appropriate levels of a curriculum. (2)
II. Curriculum Development and Instructional Methodology (Continued)

Develop learning activities that involve disadvantaged, minority, gifted and talented, and handicapped students in career education. (2)

Utilize simulation, role-playing, and gaming experiences appropriate for career awareness, career exploration, and career preparation activities. (2, 9)

Develop/apply appropriate and varied interpersonal skills necessary for planning and implementing career education experiences. (1, 6, 16)

Develop and use "learning centers." (2)

Plan/implement individualized and group learning activities which involve problem-solving and decision-making skills in relation to career education. (2, 14)

Develop and/or use student criterion-referenced tests related to course content. (12)
II. Curriculum Development and Instructional Methodology (Continued)

Identify/utilize materials, facilities, and equipment (in and outside of school) necessary for career education. (8)

Design/implement valuing experiences which pertain to career education concepts. (10)

III. Research and Analysis of Occupational and Career Programs

Identify major goals of career education (1, 3)

Identify and report on content sources regarding career information. (11)

Devise and/or locate methods and materials designed to help pupils understand and appreciate the career implications of the subject matter being taught. (1, 2, 3)

Identify information to be taught in the study of an occupation; include identification of occupational information, goals, objectives, and skills based upon career development concepts appropriate to various developmental levels. (11)
Collect, assess/evaluate print and nonprint career education materials/resources for students and career education personnel.

(11) Gather/analyze/utilize/disseminate career-oriented resource materials (books, tapes, pamphlets, filmstrips, etc.) for use by students, teachers and other community persons. (11)

Identify and/or plan and establish appropriate placement and referral services for students. (K-12) (8, 17)

Through research the student will develop a consciousness of employment and employability and make a decision based upon his own value system. (7, 11)

Identify/differentiate career education resources (references in print and community persons) appropriate/necessary for assessing career information (occupational, and personal-social). (8, 11)
III. Research and Analysis of Occupational and Career Programs (Continued)

Analyze the future of the world of work and the projected changes in the work force. (6)
Analyze relationships among education, careers, culture and life styles. (6)
Demonstrate a knowledge of methods of evaluation curriculum changes. (12)
Identify/describe and analyze the basic components of a comprehensive career education evaluation system. (12)
Collect/analyze/relate employer and student data to determine the needs of both and to plan to meet those needs. (7)

IV. Appraisals of Career Aptitude and Attitudes and Evaluation of Program Effectiveness

Develop/demonstrate the procedures and skills to assist students (K-12) in assessing their career interests, abilities, values, and needs. (10)
Develop self-awareness experiences through which students can determine the assistance/resources needed to meet their
IV. Appraisals of Career Aptitude and Attitudes and Evaluation of Program Effectiveness (Continued)

career goals. (10)

Identify and/or plan and establish appropriate placement and referral services for students (K-12). (7, 8, 10)

Compare and evaluate aptitude instruments for use in career education experiences. (10)

Design and evaluate valuing experiences which pertain to career education concepts. (10)

Identify/exhibit attitudes and behaviors toward careers which enhance student (K-12) self-concept development. (10)

Understand and apply practical strategies and experiences to assist students to:

a. classify for themselves what they value,

b. increase their depth of understanding of personal capabilities, interests, and possible limitation,

c. make and implement decisions consistent with the values
IV. 

Appraisals of Career Aptitude and Attitudes and Evaluation of Program Effectiveness (Continued)

Effectiveness (Continued) for themselves. 
(10, 14)

Develop a knowledge of inter-group-individual differences in motives, attitudes, values, and social norms and of influence 
of those differences on responses to schooling and careers. 
(10, 16)

Identify and provide a rationale for the role and function of evaluation in career education. 
(12)

Identify techniques and evaluation designs for evaluating career-oriented curriculum and programs. 
(12)

Identify and provide a rationale for the role and function of evaluation in career education. 
(12)

Identify/develop an understanding of equality concepts and roles among cultures and in work. 
(14)

Identify and provide a rationale for the role and function of evaluation in career education. 
(12)

Identify techniques and evaluation designs for evaluating career-oriented curriculum and programs. 
(12)

Develop experiences which will avoid occupational stereotypes, including glamorous occupations and sex-role/stereotypes. 
(14, 17)

Develop experiences which will avoid occupational stereotypes, including glamorous occupations and sex-role/stereotypes. 
(14, 17)
IV. Appraisals of Career Aptitude and Attitudes and Evaluation of Program Effectiveness (Continued)

Develop skills needed to utilize assessment techniques in the evaluation of career education activities and programs. (12)

Administer, score, and interpret existing and/or developed evaluation instruments for career education. (12)

Develop skills to collect, analyze, and utilize needs assessment data for the purpose of developing long-and-short-term comprehensive career education program plans/instruction. (12)

Identify/develop needs assessment instrumentation for career education and develop techniques necessary to implement needs assessment instruments for career education program planning. (12)

Analyze and utilize career education assessment data for instructional planning. (12)

Evaluate student performances with instrumentation items based
IV. Appraisals of Career Aptitude and Attitudes and Evaluation of Program Effectiveness (Continued)

upon the stated career education goals and objectives and determine correlations between objectives and performance. (10, 12)

V. Societal and Cultural Influences in Career Education

Develop and/or analyze knowledge and understandings regarding the varied societal segments within a community and identify the implications/relationships of that information about each segment for careers, education, family, life styles, and culture. (4, 8, 10)

Develop a knowledge of inter-group/individual differences in motives, attitudes, values, and social norms and analyze the influence of those differences on responses to schooling and careers. (8, 10)

Develop skills needed to act as a liaison and resource person to the community informed of new developments in career education. (8, 11)
Educate and involve the total community through communications, models, and media about career education activities. (8)

Plan/arrange for wide community participation in career education policy decision making. (8)

Identify and recruit resource persons in the employment community to assist in the school program. (7)

Design/implement career learning experiences which involve various interactions between school and community personnel/organizations/institutions. (2, 8)

Plan, implement career education experiences within varied geographic settings. (3, 17)

Plan/implement instruction which will develop student (K-12) awareness of both past and present trends of sex roles in the work world and of the effect(s) changing trends may have on family responsibilities/roles in
Societal and Cultural Influences in Career Education (Continued)

V. 

the home. (2, 14)

Describe the duties, working conditions, salary ranges and other special characteristics associated with specific occupations within the career clusters of a career cluster system. (4, 7)

Help parents understand and encourage the career development process as it relates to their children. (15)

The home and family members with whom pupils reside will...maximize, to the fullest extent possible, career development options and opportunities for themselves and for their children. (15)

Plan/implement learning experiences which are integrated with respect to education, careers, culture, home, family and lifestyles. (3)

Demonstrate a knowledge of the basic principles of school law, specific legal mandates and
V. Societal and Cultural Influences in Career Education (Continued)

decisions of the courts as they relate to career education. (13)

VI. Practicum and Seminar (Six Credits)

Demonstrate initiative and independence in the performance of working chosen careers. (9)
Demonstrate the ability to discover and analyze and create new kinds of careers. (11, 14, 17)
Develop a sound financial management plan for career education at the local level. (17)
Provide career exploratory experiences to help students gain an understanding of worker characteristics and work requirements. (2, 7, 14)
Describe employment procedures used in hiring personnel. (7)
Describe the duties, working conditions, salary ranges, and other special characteristics associated with specific occupations within the career clusters
VI. Practicum and Seminar (Six Credits)

of a career cluster system.

(4, 7, 8)

Involve students and community in the design/implementation evaluation of career-oriented practicum experiences.

(1, 2, 8, 9, 12, 17)

Provide real and/or simulated work experience related to the world of work. (3, 9)

Design/implement career learning experiences which involve varied interactions between school and community personnel/organization/institutions. (3, 8, 9)

Arrange observation, activities, or part-time employment for students and school staff to help them learn more about occupations and work settings. (9, 14, 16)
The Recommended Program

In this section are set forth recommendations focused on (1) purpose, (2) goals, (3) recruitment, (4) admission requirement, and (5) program of study.

Program Purpose and Goals

A. Purpose: The purpose of the proposed C.A.G.S. program in Career/Occupational Education should meet the needs of mid-career practicing professionals who desire to achieve a level of competency in the field of Career/Occupational Education.

B. Goals: The goals of the proposed program are as follows:

1. to develop an awareness and understanding of Career/Occupational Education as it relates to the total educational community;

2. to develop competencies in teaching skills related to Career/Occupational Education;

3. to provide an understanding of and knowledge of the philosophical, historical, and theoretical foundations of Career/Occupational Education;

4. to provide opportunities for the development of leadership/administrative/skills and competencies related to Career/Occupational Education.
Education;

5. to provide opportunities through a wide range of field-based experiences to apply knowledge, skills and competencies related to Career/Occupational Education;

6. to develop specific competencies in counseling skills related to Career/Occupational Education.

Recruitment

Recruitment of qualified applicants in the C.A.G.S. program in Career/Occupational Education should be accomplished in several ways:

1. Requests for information are to be answered by letter, pre-admission criteria, and brochure.

2. Brochures should be sent to schools announcing course offerings.

3. Announcement should be made through the State Department of Education to the six regional officers:

   Regional Education Centers
   Director, John Kearney
   182 Tremont Street, 12th floor
   Boston, Massachusetts 02111
   727-5706

   Greater Boston Regional Education Center
   Assistant Director, Louis Amadio
   54 Rindge Avenue Extension
   Cambridge, Massachusetts 02140
   547-7472
A series of in-service workshops on Career/Occupational Education should be made available through each of the six regional education areas of the Commonwealth. The topics for the workshops should be based on the findings of the needs assessment.

Admission Requirements

Admission to candidacy for the C.A.G.S. program in Career/Occupational Education may be granted by the Dean of
the Graduate School upon the recommendation of the Graduate Committee on Career/Occupational Education providing the student has met the following requirements:

1. Admission to Graduate Division
2. A Masters Degree or its equivalent
3. Three years of Administration/Teaching or Counseling experience
4. GRE Exams - Total Aptitudes Scores (Verbal and Quantitative)
5. Certification to teach at the elementary or secondary level or Certification in Counseling
6. Submission of three letters of reference
   - one character
   - one academic reference
   - one indicating level of professional performance
7. Personal interview with a member of the Career/Occupational Education Graduate Committee (criteria to be established)
8. A written statement indicating career goals of the prospective candidate
   - time commitment
   - background experience
   - readiness for advance level work
   - personal goals in regard to the field of Career/Occupational Education
9. After completing steps 1 - 8 the program of
studies may be filed for approval by the major professor, and the Dean of the Graduate School.

10. Work taken for the C.A.G.S. should not repeat work previously accomplished by the student either in his/her undergraduate or previous graduate career.

Program of Study

The total program of the C.A.G.S. in Career/Occupational Education must include a minimum of 33 graduate academic credits. Courses and experiences included in the program must point clearly to an educational goal in which the student is developing expert competency. The program must consist of courses available exclusively to graduate students.

Required courses are:

I. Theories of Career Development 3 credits
II. Curriculum Development and Instruction Methodology 3 credits
III. Research and Analysis of Occupational and Career Program 3 credits
IV. Appraisals of Career Aptitude and Attitudes and Evaluation 3 credits
V. Societal and Cultural Influences in Career Education 3 credits
VI. Practicum and Seminar 6 credits

Students may choose electives in the following areas of interests which lead to their educational goal:
Administration
Special Education
Guidance and Counseling
Elementary Education

Elective Courses - Administration

Leadership in Career Education 3 credits
Laws Relating to Careers and Management of Career Education Activity 3 credits
Educational Personnel Administration 3 credits
Management of Human Resources 3 credits
Supervision of Occupational Education 3 credits
Advanced Supervision of Occupational Education 3 credits
Administration of Occupational Education 3 credits
Management by Objectives - Occupational Education 3 credits

Elective Courses - Special Education

Developmental Deviations of Children and Adults with Special Needs 3 credits
Secondary Programs in Special Education 3 credits
Legislation for Special Needs 3 credits
Administration of Special Needs 3 credits
Individualizing Instruction in Special Education 3 credits
Community Resources 3 credits
Special Needs Program for Vocational Education

Habilitation and Rehabilitation for Special Education

Elective Courses - Guidance and Counseling

Psychology of Group Relations

Counseling in Career Education (Theory and Techniques)

Theories of Personality

Vocational and Educational Information and Placement Education

Group Process and Counseling

Elective Courses - Elementary Education

Reading in the Content Areas

Roles of the Teacher in an Individual Program of Instruction

Vocational and Educational Information and Placement

Group Dynamics

Home, School and Community Resources
APPENDIX
Dear Participant:

The purpose of this assessment packet is to determine your feelings concerning the need for an advanced graduate program, focused on career/occupational education.

The packet is made up of four sections. Each section is set forth in a different color as follows:

**BLUE SECTION** - nine charts presenting the major ideas related to career/occupational education.

**WHITE SECTION** - questions for your response. (The directions for responding to these questions are provided in the white section. Please follow these directions carefully.)

**YELLOW SECTION** - a check list of 65 skills and/or areas of knowledge focused on teaching and counseling. (The items reflect a special emphasis on career/occupational education.)

**GREEN SECTION** - a check list of 59 skills and/or areas of knowledge focused on administration and supervision. (The items reflect a special emphasis on career/occupational education.)

START WITH THE BLUE SECTION. Study the nine charts in the blue section and THEN PROCEED TO THE WHITE SECTION. At different points in the white section you will be directed to go to the yellow section and/or the green section.

When you have completed the assessment packet, return it to your school administrator.

Thank you very much for participating in this needs assessment. We feel many students, teachers, and administrators will benefit through the time and effort you have given to this endeavor.

Sincerely,

George B. James
Dr. George B. James
Director of Careers and Occupational Education

Gerard P. Antonellis
Educational Specialist
Division of Occupational Education
BIOGRAPHICAL DATA

DATE: ........................................

Name: ........................................................................

Address: ........................................................................
.............. street .............. city .............. state

Date of Birth: ............ .... month year

Sex: Female...... Male......

Present Employer: ........................................................................
address

PRESENT POSITION

Teacher: Elementary ............ Secondary ............
Major Subject Area............

Asst. Principal: Elementary Secondary ............

Principal: Elementary Secondary ............

Graduate Student (Full Time)............

Undergraduate Student ............

Other (Explain) ..................

HIGHEST DEGREE HELD

Bachelors ............
Bachelors + ............
Masters ............
Masters + ............
Specialist (CAGS) ............
Doctorate ............

STUDENT
Socioeconomic
Background

Upper ............
Middle ............
Lower ............

Type of School in which you are Presently Employed

Elementary ............
Jr. High ............
Sr. High ............

School Enrollment

0-200 ............
201-500 ............
501-800 ............
801-1000 ............
1001-2000 ............
2001-up ............

Setting

Urban ............
Suburban ............
Rural ............

Any further description of the school: ........................................

State the year you were last enrolled in a college course ............

Number of years you have had as a Classroom Teacher ............

If you are presently in an Administrative Position, how long have you been in your present position? ............

Number of years you have been in Educational Administration ............
CAREER/OCCUPATIONAL EDUCATION

"GENERAL PARAMETERS"

CAREER/OCCUPATIONAL EDUCATION IS PREPARATION FOR MEANINGFUL AND PRODUCTIVE ACTIVITY, AT WORK OR AT LEISURE, WHETHER PAID OR VOLUNTEER, AS EMPLOYEE OR EMPLOYER, IN PRIVATE BUSINESS OR IN THE PUBLIC SECTOR, AND IN THE FAMILY.*

VOCATIONAL EDUCATION IS A SIGNIFICANT PART OF CAREER/OCCUPATIONAL EDUCATION, BUT CAREER/OCCUPATIONAL EDUCATION IS NOT NECESSARILY SYNONYMOUS WITH VOCATIONAL EDUCATION.**

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* Kenneth Hoyt, et al., Career Education: What It Is and How To Do It, Olympus Publishing Co.: Salt Lake City, Utah, p. 2.

CAREER/OCCUPATIONAL EDUCATION

"A Definition"

Career/occupational education is defined as the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society; to integrate these values into their lives in such a way that work becomes possible, meaningful, and rewarding to each individual.*

*Kenneth Hoyt, et. al., Career Education: What It Is and How To Do It, Olympus Publishing Co.: Salt Lake City, Utah, p. 1. (slight modification)
CAREER DEVELOPMENT

GENERAL DEFINITION AND ROLE*

I. Career development is a life-long process of integration of self and society through productive activity paid or unpaid.

II. Career development is every teacher's responsibility. Every teacher should teach for the application of their subject into the real world. Teachers cannot assume that students will discover this relationship on their own.

III. Career development curriculum should be coordinated so that each teacher's subject content is related to careers.

GENERAL OBJECTIVES OF A CAREER EDUCATION PROGRAM (K - 12)*

1. To make school more relevant to all students in terms of life and work after school.

2. To aim at reducing student drop-out rates through a curriculum that relates subject matter to real career situations.

3. To prepare all individuals on a nondiscriminating basis whether pursuing technical, professional, vocational, or nonpaying careers.

4. To foster a cooperative working relationship among all staff members.

5. To include all students, all levels, all educators, and all subjects in a school.

6. To bring about community involvement with schools.

7. To act as a humanizing vehicle for education (human beings have careers).

8. To put career development foremost, thereby placing the emphasis on decision-making, the development of the self concept and the individual.

PHASES OF CAREER/OCCUPATIONAL EDUCATION*

There are three essential phases in the career/occupational education process for each individual student.

Awareness (Grades K-6)

The objective of the Awareness Phase is to help all students become aware of the values of a work-oriented society. It exposes students to a variety of work values so that they will know and understand those that exist. It does not seek to impose any particular set of work values on any individual. It simply assumes that a person cannot develop his/her own work values unless he/she is familiar with those held by others and understands their basic effects upon individuals and upon society.

Exploring and Personal Decision Making (Grades 7-10)

The second phase involves exploration and personal decision making. Its objective is to help individuals integrate work values into their personal value systems. In this step the individual thinks about himself/herself and about work values; decides the meanings various work values have for him/her, accepts those that are congenial to his/her total personal value system and rejects those that are not. Included are all those activities and procedures designed to help individuals explore the personal meaning which various forms of work values hold for him/her.

Implementing Work Values (Grade 11 through graduation from high school and/or higher education)

The third phase seeks to help individuals implement work values in their lives. This is essentially an occupational preparation, job placement and job success step. It consists of all those activities and procedures required for an individual to become proficient in occupational skills and avocational skills to enter into employment or social service.

*Kenneth Hoyt, et. al., Career Education: What It Is and How To Do It, Olympus Publishing Co.: Salt Lake City, Utah, pp. 10 & 11.
SEVEN DIMENSIONS OF CAREER EDUCATION *

THE STUDENT:

1. Assesses his/her interests, abilities, values, needs and other self characteristics as they relate to occupational roles and manpower needs.

2. Explores broad occupational areas in terms of opportunities, potential satisfactions, required roles of workers and other related dimensions.

3. Explores the psychological meaning of work and its value in the human experience.

4. Understands modern work environments.

5. Possesses an awareness that the individual's role in work is tied to the well-being of the community.

6. Demonstrates effective decision-making skills in striving to achieve occupational goals.

7. Acquires a concept of self as a productive person in an achievement-oriented society.

A COMPREHENSIVE CAREER DEVELOPMENT EDUCATIONAL PROGRAM (K-12)*

**MINNESOTA**

***TO SERVE ALL STUDENTS (K-12)***  
***TO PROVIDE TOTAL OCCUPATIONAL OPPORTUNITIES SPECTRUM***

| Chart 7 |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| SIMULATED AND REAL WORK EXPERIENCES FOR STUDENTS (K-12) | CURRICULUM INTEGRATED CAREER DEVELOPMENT PROGRAMS (INCLUDING TEACHER GUIDANCE PROGRAM, INTEGRATED TEACHER-GUIDANCE PROGRAMS, INTEGRATED CAREER GUIDANCE PROGRAMS, INTEGRATED CAREER DEVELOPMENT PROGRAMS, INTEGRATED CAREER DISCOVERY PROGRAMS) | VACATIONAL TEACHING STAFF (THROUGH REIMBURSED PROGRAMS) | Inter-And Intra-Agency Cooperation And Resource Use | EXEMPLARY PROGRAMS (MINI-COURSES, TEAM TEACHING, OPEN CLASSROOM, CURRICULUM INNOVATION, CONTINUOUS PROGRESS EDUCATION) | PLACEMENT SERVICES (JOBS, SOCIAL SERVICE ACTIVITIES, PART-TIME EMPLOYMENT, INCLUDING DROPOUTS) | CAREER DAYS | OCCUPATIONAL RESOURCES (SPEAKERS, FIELD TRIPS, MATERIALS, ADMINISTRATION STAFF) | PRE- AND IN-SERVICE TRAINING (INSTRUCTIONAL STAFF) | ELECTIVE COURSES (INCLUDING MAINSTREAMING) | EXPLORATORY EDUCATION (OCCUPATIONAL ORIENTATION AND TRAINING) |

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ASSESSMENT CRITERIA FOR CAREER DEVELOPMENT PROGRAM
IN A SCHOOL SYSTEM *

1. The program is designed for all students (K-12).

2. Career development is integrated throughout the entire school curriculum.

3. All students are exposed to the full spectrum of the world of work.

4. The program provides directed occupational experiences and exploration in the real world of work along with simulated and informational experiences to permit focus on career clusters.

5. Coordination is provided within the school system and among teaching staff.

6. In-service training programs orienting teachers to the world of work are provided.

7. An integrated career guidance program is provided.

8. Marketable entry level job skills for all students are developed.

*Adapted from Cliff Hellings, "Career Development Concept: An Understanding, Plan, and Work Packet for Educators K-12." (A monograph written for Independent School District 281, Robbinsdale, Minnesota.) p. 34.
CAREER/OCUPATIONAL EDUCATION: CONCLUDING THOUGHTS

1. Career/occupational education enhances, rather than supplants, all educational programs. It serves as a vehicle to improve the teaching-learning process.

2. Career/occupational education should be an integral part of the present structure of all schools.

3. Career/occupational education involves all subjects, all students and all educators. Almost everything the school teaches can be helpful in at least one type of career.

4. Career education is a continuum that begins with preschool and extends throughout life.

5. Career/occupational education provides a means of articulation from grade to grade.

6. The implementation of career/occupational education is dependent upon the commitment from all levels of the community.

7. Career/occupational education promotes positive attitudes toward all useful work including psychologically rewarding endeavors. It emphasizes the belief that all work (paid or unpaid) needed by society is honorable and that any worker who performs such work well is honorable.

8. Career/occupational education permits each student to realistically assess personal attributes as a part of setting life goals.


10. Career/occupational education contributes greatly to student incentives, aspirations and achievements.

11. Career/occupational education develops effective decision-making skills related to occupational choices made throughout a life-time.

12. Career/occupational education involves extensive orientation and exploration of occupational opportunities. Going through school with no consideration of the types of careers in which one might be interested causes one to miss much of the value of school.

13. Career/occupational education includes specific preparation for occupations through vocational education or other appropriate educational experience.

14. Vocational education is a significant part of career/occupational education, but career/occupational education is not necessarily synonymous with vocational education.
INSTRUCTION: After you have scanned the ideas presented in Charts 1 through 9 (blue pages) proceed to one of the following:

A. IF YOU ARE PRESENTLY A CLASSROOM TEACHER OR COUNSELOR GO TO ITEM #1.

B. IF YOU ARE PRESENTLY AN ADMINISTRATOR, SUPERVISOR, DIRECTOR, COORDINATOR OR DEPARTMENT CHAIRMAN GO TO ITEM #9.

TEACHERS AND COUNSELORS

1. To what extent are you currently implementing the ideas presented in Charts 1 - 9 in your classroom (school)?

(circle one)

(1)  (2)  (3)  (4)  (5)  (6)  (7)
Very Great Moderate Extent
Great Extent

2. To what extent would you want to implement the ideas presented in Charts 1 - 9 in your classroom (school)?

(circle one)

(1)  (2)  (3)  (4)  (5)  (6)  (7)
Very Great Moderate Extent
Great Extent

3. Do you want additional professional training to help you implement these ideas in your classroom (school)? (circle one)

(YES)  (MAYBE)  (NO)

A. IF YOU CIRCLED "NO" GO ON TO ITEM # 7.

B. IF YOU CIRCLED "YES" OR "MAYBE" GO ON TO ITEM # 4
4. On pages 15 through 22 (yellow section) is a list of skills and areas of knowledge related to the implementation of these ideas. Proceed to these pages and check the skills and areas of knowledge that you would like to pursue. (After you have completed the assignment on the yellow pages you will go on to Item #5, below.)

(COMPLETE THE ASSIGNMENT ON THE YELLOW PAGES BEFORE GOING ON TO ITEM #5.)

5. In order to gain the skills you have checked on the yellow pages, would you participate in a CAGS program (Certificate of Advanced Graduate Studies: post-Masters program) if it were offered in your geographic area? (circle one)

(YES) (MAYBE) (NO)

A. IF YOU CIRCLED "NO" GO ON TO ITEM # 7.
B. IF YOU CIRCLED "YES" OR "MAYBE" GO ON TO ITEM # 6.

6. If you circled "yes" or "maybe" indicate the conditions you would want to exist in order for you to participate in such a program. (State these conditions in the space below then proceed to Item # 7.)
7. Are you aspiring for one of the following leadership/administrative positions in the future: Administrator, Supervisor, Director, Coordinator or Department Chairman?
   (YES) (MAYBE) (NO) Circle one

   A. IF YOU CIRCLED "NO" YOU ARE FINISHED WITH THE QUESTIONNAIRE.
      (Thank you very much for your assistance.)

   B. IF YOU CIRCLED "YES" OR "MAYBE" GO ON TO ITEM # 8.

8. State the specific leadership/administrative position for which you are aspiring (Examples: Assistant Elementary Principal; Director of Career Education; Math Dept. Chairman; Junior High School Principal; Assistant Supt. of Curriculum and Instruction; etc.). State the position in the space below and then proceed to Item # 9.

ADMINISTRATORS, SUPERVISORS, DIRECTORS, COORDINATORS AND DEPARTMENT CHAIRMEN
(Persons presently in these positions and those aspiring for these positions.)

9. Do you want additional leadership/administrative training to help you (in the role of an administrator, supervisor, department chairman, etc.) implement the ideas presented in Charts 1 - 9 in your school or school district?
   (YES) (MAYBE) (NO) circle one

   A. IF YOU CIRCLED "NO" YOU ARE FINISHED WITH THE QUESTIONNAIRE.
      (Thank you very much for your assistance.)

   B. IF YOU CIRCLED "YES" OR "MAYBE" GO ON TO ITEM # 10.
10. On pages 23 through 34 (green section) is a list of skills and areas of knowledge related to leadership/administrative development and focused on the implementation of the ideas presented in Charts 1 - 9. Proceed to these pages and check the skills and areas of knowledge you would like to pursue. (After you have completed the assignment in the green section you will go on to Item #11, below.)

(COMPLETE THE ASSIGNMENT ON THE GREEN PAGES BEFORE GOING ON TO ITEM # 11.)

11. In order to gain the skills you have checked on the green pages, would you participate in a CAGS program (Certificate of Advanced Graduate Studies: post-Masters program) if it were offered in your geographic area?

(YES) (MAYBE) (NO) Circle one

A. IF YOU CIRCLED "NO" YOU ARE FINISHED WITH THE QUESTIONNAIRE.

(Thank you very much for your assistance.)

B. IF YOU CIRCLED "YES" OR "MAYBE" GO ON TO ITEM #12.

12. If you circled "yes" or "maybe", indicate the conditions you would want to exist in order for you to participate in such a program. (State these conditions in the space below.)

YOU ARE FINISHED WITH THE QUESTIONNAIRE. THANK YOU VERY MUCH FOR YOUR ASSISTANCE.
SECTION IV: SKILLS AND AREAS OF KNOWLEDGE RELATED TO TEACHING AND COUNSELING

INSTRUCTIONS: In this section are presented a number of skills and areas of knowledge related to teaching career development concepts. Place a check (✓) in the blank corresponding to the skills and areas of knowledge you would like to acquire (or gain to a greater degree). Check as many as you feel you need.

1. (Career Development) Gain a practical understanding of the theories of career development.

2. (Learning Centers) Develop and use "learning centers" in my classroom.

3. (Multi-media) Develop and/or use a variety of multi-media approaches in my classroom.

4. (Inter-disciplinary Planning) Understand and apply practical strategies for integrating my subject content with the subject content of other disciplines.

5. (Evaluation) Develop and/or use student criterion-referenced tests related to my course content.

6. (Human Relations for Teachers) Understand and apply practical skills for effectively relating to self, to other individuals and to groups.

7. (Teaching Achievement Motivation) Understand and apply practical strategies for motivating the majority of my students to set high standards and to pursue these standards energetically.
8. (Communications) Understand and apply practical skills to assist students to freely communicate information, ideas, attitudes and emotions effectively, commensurate with today's and tomorrow's needs (listening, reading, speaking and writing).

9. (Value Clarification and Student Decision-making) Understand and apply practical strategies to assist students to a) clarify for themselves what they value and b) make and implement decisions consistent with the values the students have identified for themselves.

10. (Teacher Behavior in the Classroom) Increase or improve my response repertoire, questioning skills, presentation skills, and student participation skills.

11. (Self-concept) Understand and apply practical strategies to assist students to develop and maintain a healthy self-concept.

12. (Learning Theory - general) Understand and apply the principles and theories of human learning to my classroom situation.

13. (Theories of Learning - Career Development) Understand and apply the principles and theories of human learning to the design and implementation of career education curricula.

14. (World of Work) Be knowledgeable concerning the future of work and projected changes in the work force.

15. (World of Work) Gain a general knowledge of the "World of Work" and an orientation to and understanding of the socio-psychological principles related to the "World of Work".
16. (Career/Occupational Education Concepts) Gain a practical understanding of career/occupational education concepts and a knowledge of the exemplary career education programs currently in existence.

17. (Student Goal-Setting) Understand and apply practical strategies to assist students to realistically assess personal attributes as part of setting life goals.

18. (Team Teaching) Understand and implement practical classroom management strategies for team teaching.

19. (Instructional Units) Develop and implement instructional units incorporating an effective use of large group, small group and independent study techniques.

20. (Behavioral Modification) Understand and apply effective behavioral modification techniques with students.

21. (Transactional Analysis) Understand and apply the principles of transactional analysis in my classroom situation.

22. (Humanistic Education) Gain a practical understanding of humanistic education techniques.

23. (Leadership Skills and Films) Understand and use films to assist students develop effective leadership skills.

24. (Creativity) Understand and apply practical strategies to assist students in developing and demonstrating creative problem-solving behaviors.
25. (Individualized Instructional Units - general) Develop and implement learning activity packages focused on my subject content.

26. (Individualized Instructional Units - Career Development) Develop and implement learning activity packages focused on an integration of concepts in my subject content with career development concepts.

27. (Performance Objectives - general) Develop and implement performance objectives for my subject content (cognitive, affective and psychomotor).

28. (Performance Objectives - Career Development) Develop and implement performance objectives focused on an integration of concepts in my subject content with career development concepts (cognitive, affective and psychomotor).

29. (Individualized Instruction - classroom management) Understand and implement practical classroom management strategies for providing students with a variety of learning activities from which they can choose.

30. (Learning Styles) Understand and apply practical strategies for matching various instructional procedures with the individual student's learning styles.

31. (Manipulatives) Provide "hands-on" experiences for students in my subject content.

32. (Career Games and Kits) Develop and/or use career games and kits related to my subject content.
33. (Work Experience) Provide real and/or simulated work experience related to my subject content.

34. (Leadership - Simulations) Assist students in my subject(s) to develop effective decision-making and leadership skills through the use of simulations and role playing experiences.

35. (Community Resources) Understand and apply practical strategies for using the total community as a learning laboratory and using community resource persons in my classroom.

36. (Continuous Progress Education) Understand and apply practical strategies for developing, implementing and monitoring a continuous progress instructional program in my subject(s).

37. (Open Classroom) Understand and apply practical strategies for developing, implementing and monitoring an "open classroom" instructional program.

38. (Instructional Units) Develop and implement vocational/technical instructional units based on a job description, task analysis, performance objectives and criterion examination.

39. (Human Development - Occupational Education) Be knowledgeable concerning human development as it affects occupational education at various age levels.
Understand and apply practical strategies for incorporating career development concepts into the teaching of:

40. Humanities
41. Science
42. Fine Arts
43. English/Language Arts
44. Mathematics
45. Social Studies
46. Physical Education
47. Vocational/Technical Courses (Specify courses)

48. Health Education
49. Foreign Language
50. Home Economics
51. Industrial Arts
52. Business and Distributive Education
53. Other (Specify courses)
54. Self-understanding is vital to career decisions and work performance.

Examples of sub-concepts: a) A positive concept of self enables the individual to enter and function in a working world, b) A person's work may contribute to a positive concept of self, c) An individual may be suited to numerous different occupations, d) Value judgments influence vocational choice, e) Others.

55. Man and technology are continually interacting in his work.

Examples of sub-concepts: a) Man uses technology to satisfy his needs and to achieve his desires, b) Technological developments cause a continual change in the emergence and disappearance of jobs, c) Technology has unlimited implications for man's work and leisure time, d) Man must learn to use technology to his advantage, e) Others.

56. Man's livelihood depends upon the production, distribution and consumption of goods and services.

Examples of sub-concepts: a) Man's work contributes to a nation's wealth and productivity, b) Economic fluctuations influence occupational choice and opportunity, c) Man's work affects his standard of living, d) Others.
57. Society reflects the creative force of work.

Examples of sub-concepts: a) Society is dependent upon the work of many people, b) The customs, traditions and attitudes of society affect the world of work, c) Societal needs determine vocational opportunity, d) Others.

Understand and apply practical strategies to assist students in gaining an awareness and acceptance that:

58. Career education prepares man for the world of work.

Examples of sub-concepts: a) Each person needs to be recognized as having dignity and worth, b) Career development is a continuous process and requires a continuous series of choices, c) Hobbies and interests may lead to a vocation or avocation, d) There is a wide variety of careers which may be classified in several ways, e) There are job clusters within occupational areas as well as across occupational areas, f) Education and work are interrelated, g) Individuals are responsible for their career planning, h) There is no single "best" motive for choosing a career plan, i) Vocational preparation requires skills development, j) Workers may need vocational retraining in the course of a lifetime, k) Others.

(Items 59 through 65 - Learning Goals for Career Development)

Understand and apply practical strategies to assist each student to:

59. Assess his/her interests, abilities, values, needs and other self characteristics as they relate to occupational roles.
60. Explore broad occupational areas in terms of opportunities, potential satisfactions, required roles of workers and other related dimensions.

61. Explore the psychological meaning of work and its value in the human experience.

62. Understand modern work environments.

63. Possess an awareness that the individual's role in work is tied to the well-being of the community.

Understand and apply practical strategies to assist students to:

64. Demonstrate effective decision-making skills in striving to achieve occupational goals.

65. Acquire a concept of self as a productive person in an achievement-oriented society.

In the space below, specify other skills and/or areas of knowledge, related to teaching career development concepts, which you feel you need/or would like to acquire.

NOTE!

(When you have finished the assignment in the Yellow Section go to Item # 5 On Page 12 in the White Section.)
SECTION V:

SKILLS AND AREAS OF KNOWLEDGE RELATED TO ADMINISTRATION AND SUPERVISION

INSTRUCTIONS: In this section are presented a number of skills and areas of knowledge related to administration and supervision. Special emphasis is on career/occupational education programs. Place a check (✓) in the blank corresponding to the skills and areas of knowledge you would like to acquire (or gain to a greater degree). Check as many as you feel you need for either your present leadership position or future leadership positions for which you are striving.

These skills and areas of knowledge are clustered within the following four major categories: A) General Professional Skills and Understandings, B) Professional Helping Skills, C) Leadership and Management Skills Related to Building Level Activities and D) Routine Administrative Functions Related to District-wide Activities.

A. GENERAL PROFESSIONAL SKILLS AND UNDERSTANDINGS

1. (Career Development) Gain a practical understanding of the theories of career development.

2. (Value Clarification and Decision-making) Understand and apply practical strategies to a) clarify for myself what I value, and b) make and implement decisions consistent with these identified values.
3. (Learning Theory - general) Gain a practical understanding of the theories of learning.

4. (Theories of Learning - Career Development) Understand and apply the principles and theories of human learning to the design and implementation of career education curricula.

5. (World of Work) Be knowledgeable concerning the future of work and projected changes in the work force.

6. (World of Work) Gain a general knowledge of the "World of Work" and an orientation to the understanding of the social psychological principles related to the "World of Work".

7. (Career/Occupational Education Concepts) Gain a practical understanding of career/occupational education concepts and a knowledge of the exemplary career education programs currently in existence.

8. (Transactional Analysis) Understand and apply the principles of transactional analysis in my role as a supervisor.

9. (Innovative Practices) Understand and apply practical strategies to initiate and implement such innovative practices as flexible scheduling, the nongraded school, continuous progress education and others.

10. (Community Resources) Understand and apply practical strategies for developing and implementing a comprehensive program for using the total community as a learning laboratory. Use community resource persons in the school (including work study programs and cooperative education program).
11. (Human Development - Occupational Education) Be knowledgeable concerning human development as it affects occupational education at various age levels.

12. (Proposal Development) Develop proposals for state and federal programs.

13. (Involvement of Other Agencies) Plan for the active cooperation of various agencies such as industry, government, medicine and the like.

14. (Human Relations - Supervisor) Understand and apply practical skills for effectively relating to self, to other individuals and to groups.

15. (Special Education - Mainstreaming) Understand and apply practical strategies for implementing instructional programs for the exceptional child, including mainstreaming.

16. (Leadership Style) Understand and apply practical strategies for identifying my own leadership style and initiating effective leadership behavior.

17. (Conflict Resolution) Understand and apply successful conflict resolution strategies.

18. (Communication Skills - Supervisor) Develop effective communication skills (listening, speaking and writing).

19. (Creative Problem-solving) Understand and apply practical strategies for enhancing individual and group creative problem-solving.

20. (Leadership - Group Behavior) Understand and apply practical strategies for identifying helpful and dysfunctional behaviors while working in groups.
21. (Delegating and Use of Time) Use my time effectively and develop the skill of delegating.

22. (Organizational Development) Gain a practical understanding of the socio-psychological aspects of organizational development, especially as it relates to the school system.

23. (Basic Concepts of Vocational Education) Gain a practical understanding of basic concepts of vocational education.

Examples: a) Be familiar with organizational structures and various forms of vocational education in the U. S., b) Be knowledgeable of the history of vocational education in the U. S., c) Be familiar with the general certification, legal and administrative status of vocational education in general, d) Be aware of contemporary issues affecting vocational education, e) Others.

B. PROFESSIONAL HELPING SKILLS

24. (Creativity) Assist teachers in developing and demonstrating creative problem-solving behaviors.

25. (Performance Objectives - Career Development) Assist teachers in developing and implementing performance objectives focused on an integration of concepts in their subject content, with career development concepts (cognitive, affective and psychomotor).
26. (Innovative Practices - general) Assist teachers to initiate and maintain such innovative practices as flexible grouping, team teaching, open space instruction, continuous progress education, humanistic education, learning centers, inter-disciplinary planning, open-classroom, mini-courses, use of student criterion-referenced tests, behavioral modification techniques and others.

27. (Teacher Behavior in the Classroom) Assist teachers in increasing or improving their response repertoire, questioning skills, presentation skills and student participation skills.

28. (Instructional Units) Assist teachers in developing and implementing instructional units incorporating an effective use of large group, small group and independent study techniques.

29. (Individualized Instruction - Classroom Management) Assist teachers in implementing practical classroom management strategies for providing students with a variety of learning activities from which they can choose.

30. (Learning Styles) Assist teachers to apply strategies for matching various instructional procedures and learning modes with individual student's learning rate, interests, abilities and learning styles.

31. (Career Games and Kits) Assist teachers in developing/using career games and kits related to their subject content.

32. (Manipulatives) Assist teachers in providing "hands-on" experiences for students in their courses.
33. (Work Experience) Assist teachers in providing real/simulated work experience for the students in their courses.

34. (Simulations - Leadership Skills) Assist teachers in developing/using simulations and role playing experiences for developing student leadership skills.

35. (Instructional Units) Assist teachers in developing and implementing vocational/technical instructional units based on a job description, task analysis, performance objectives and criterion examination.

36. (Course Content and Career Development Concepts) Assist teachers in incorporating career development concepts into the teaching of their subject content.

37. (Multi-media) Assist teachers in making proper use of media and technology in the teaching-learning process.

38. (Human Relations - Teachers) Assist teachers in effectively relating to themselves, to other individuals and to groups.

39. (Communications - Students) Assist teachers in teaching students to freely communicate information, ideas, attitudes and emotions effectively (Listening, reading, speaking and writing).

40. (Self Concept - Students) Assist teachers in applying practical strategies for enhancing the self concept of their students.
C. LEADERSHIP AND MANAGEMENT SKILLS RELATED TO BUILDING LEVEL ACTIVITIES

41. (Instructional Leadership) Understand and apply practical strategies for initiating and maintaining the environment for instructional improvement and change.

Examples of sub-skills: a) Demonstrate a knowledge of change theory, b) Analyze the climate for changes in a given organizational setting, c) Demonstrate a knowledge of how to proceed for a planned instructional change, d) Demonstrate a knowledge of current innovative practices nationwide, statewide and locally, e) Assist individual teachers and groups of teachers in planning, implementing and evaluating teacher-initiated change, f) Others.

42. (Instructional Leadership) Understand and apply practical strategies for initiating and maintaining the environment for curriculum improvement.

Examples of sub-skills: a) Demonstrate a knowledge of current curriculum trends, b) Demonstrate a knowledge of the student population for which you are responsible and how the new trends relate to this given population, c) Develop and implement a strategy for the involvement of a given community in curriculum improvement, d) Motivate staff to implement a curriculum improvement, e) Demonstrate a knowledge of methods for evaluating curriculum changes, f) Others.
43. (Personnel Leadership) Understand and apply practical strategies for effectively recruiting, selecting and assigning professional and nonprofessional staff members.

Examples of sub-skills: a) Obtain and utilize applications from a variety of educational personnel resources, b) Identify and use sources which provide applicants representative of multi-ethnic and/or multi-racial backgrounds, c) Conduct interviews to effectively evaluate candidates, d) Use staff resources to assist in personnel selection, e) Prepare a complete job analysis of all available staff positions, f) Make assignments of staff in line with identified capabilities, g) Others.

44. (Leadership in Community Relations) Understand and apply practical strategies for identifying community needs, translating these needs into programs, assessing the community's response to the program and raising the community's expectations of the educational programs.

Examples of sub-skills: a) Develop strategies and implement programs designed to keep the community informed of activities and programs in the school, b) Identify and analyze community characteristics such as social class, community power structure, cultural values, interest groups and pressure groups, c) Outline the elements of a community survey instrument, d) Identify educational needs indigenous to the community and pupil population, e) Propose educational programs appropriate to identified community needs, f) Organize, maintain and strengthen liaison with parent-teacher groups, citizen's advisory groups, influential individuals and groups, public relations services and the mass media, g) Inform parents on an on-going basis as to new philosophies in the educational world, h) Involve parents in school programs, i) Others.
45. (School Management: Building Level) Understand and apply strategies for the effective operation of the school within the law and safety standards.

Examples of sub-skills: a) Demonstrate a knowledge of the basic principles of school law, specific legal mandates and decisions of the courts as they apply to your responsibilities in such areas as pupil attendance, curriculum, personnel administration, plant operation and safety, b) Demonstrate a knowledge of the legal responsibilities, policies and directives of the Board of Education and the Superintendent of Schools, c) Demonstrate a knowledge of the legal rights and responsibilities of the teacher, student and parent, d) Demonstrate a knowledge of safety regulations with respect to equipment and supplies employed in the school program, e) Interpret existing state law and school district policies and regulations with respect to safety in regard to staff, students and community, f) Others.

46. (School Management: Building Level) Understand and apply practical strategies for the effective fiscal operation of the school.

Examples of sub-skills: a) Demonstrate a knowledge of the components of a budget, budget preparation and control, accounting procedures, purchasing and inventory procedures, b) Identify the essentials of such supporting sources as transportation, food service, data processing, school building planning, operation and maintenance and insurance, c) Prepare, with your staff and the central administration, the school budget, d) Operate the program within budget limitations, e) Maintain fiscal records and files and appropriate financial reports, f) Others.
47. (Personnel Management: Legal) Understand and apply practical strategies for evaluating staff and maintaining appropriate personnel records.

Examples of sub-skills: a) Keep appropriate records of observation reports, b) Evaluate staff members in terms of their performance, c) Utilize an efficient means of maintaining personnel records, d) Make appropriate decisions concerning separation or retention of probational teachers, and granting tenure, in accordance with district regulations and union contracts, e) Know and use the appeal processes designed to safeguard employee rights, f) Demonstrate knowledge of district regulations and teachers bargaining contract with regard to retention and dismissal, g) Others.

48. (Planning, Programming and Budgeting Systems) Understand and apply practical strategies for initiating, implementing and maintaining an educational planning, programming and budgeting system (PPBS).

Examples of sub-skills: a) Recruit and train task team, b) Prepare district planning and implementation schedule, c) Prepare communications plan, d) Prepare district training program, e) Develop program structure, f) Develop program accounting, g) Prepare objectives (and prioritize the objectives), h) Develop evaluation plan, i) Prepare multi-year financial plan, j) Apply program analysis (alternative ways of achieving the objectives are considered), k) Prepare PPBES document.
49. (Mutual Goal Setting: School Management-by-Objectives) Understand and apply practical strategies for initiating, implementing and maintaining a performance objectives approach to teacher appraisal.

Examples of sub-skills: With the mutual cooperation of the teacher 
a) specify the performance criteria (standards), b) develop the performance objectives or job targets, c) decide on the performance activities, d) develop and implement procedures for monitoring the performance, e) assess the monitored data, f) conduct evaluation post-conference and follow-up activities.

50. (Implementing Career Education) Understand and apply practical strategies for executing the action steps for implementing a comprehensive career/occupational education program.

Examples of sub-skills: a) Organize an interactive network of interested groups, b) Gain an understanding of career/occupational education; establish it as a high-priority objective, c) Study the current educational system to determine the changes necessary to incorporate into it a true career/occupational education system, d) Conduct an inventory and marshal community resources, e) Design preliminary programs of career/occupational education, f) Establish a cooperative relationship among the participating organization, institutions and individuals, g) Implement the system, h) Develop a program evaluation, i) Create a feedback system to use evaluation findings to improve career education programs, j) Make provisions for a program of maintenance to sustain the vital parts of the system.
51. (Personnel Leadership: Staff Morale) Understand and apply practical strategies for initiating, maintaining and continually promoting good staff morale.

Examples of sub-skills: a) Demonstrate skills in diagnosing staff morale, b) Demonstrate a practical knowledge of the theories of motivation, c) Provide for an open line of communication, d) Demonstrate knowledge and skill in interpersonal relations, e) Conduct effective individual conferences with staff and offer constructive criticism and recommendations for improvement, f) Others.

52. (Instructional Leadership) Understand and apply practical strategies for providing for continuous assessment of instructional processes and programs.

Examples of sub-skills: a) Demonstrate the interrelationship of overall educational philosophies and objectives to the ongoing operation of the school, b) Execute an assessment plan that relates to ongoing decisions and actions of the school, c) Demonstrate the importance of educational philosophy in the preparation of general and specific objectives, d) Establish ways in which to involve students in the evaluation of instructional programs, e) Locate and obtain commercial instruments to evaluate your objectives, f) Construct instruments and data collection procedures which will insure valid and reliable measurement of objectives, g) Others.
(Instructional Leadership) Understand and apply practical strategies for assisting the instructional staff in providing appropriate instructional programs for each student.

Examples of sub-skills: a) Demonstrate knowledge of innovative techniques designed to promote a cooperative approach to the observation and analysis of classroom instruction and the "clinical" approach to supervision, b) Outline an inservice education program for professional paraprofessional personnel in your school, c) Establish procedures for staff needs assessment, d) Establish cooperative procedures for providing resources which may be available to the staff, e) Establish teams of professional and community members who will, in conjunction with the student, determine instructional program alternatives for each student, f) Establish procedures for determining whether each selected student's program includes individually prescribed and/or approved objectives, resources, activities, small group instruction, self-assessment techniques and a student-teacher determined evaluation, g) Others.

D. ROUTINE ADMINISTRATIVE FUNCTIONS RELATED TO DISTRICT-WIDE ACTIVITIES

(School Plant and Services) Understand and apply practical strategies for the district-wide programming and monitoring of school plant and services functions.

The Functions: a) Plant planning, construction, operation and maintenance, b) grounds maintenance, c) site acquisition, d) library operations, e) plant safety, f) sub operations, g) transportation safety, h) school lunch, h) Others.
55. (Finance and Business Management) Understand and apply practical strategies for the district-wide programming and monitoring of finance and business management functions.

The Functions: a) Budget construction, control and administration, b) debt service administration, c) payroll administration, d) supervising and auditing internal accounts, e) insurance administration, f) specifications for equipment and supplies, g) purchasing equipment and supplies, h) handling state/federal support programs, i) others.

56. (Pupil Personnel Administration) Understand and apply practical strategies for the district-wide programming and monitoring of pupil personnel functions.

The Functions: a) Orientation of pupils, b) scheduling of pupils, c) pupil counseling, d) student health, e) student attendance, f) student census, g) student guidance, h) student records, i) assessing student progress, j) student activities, k) occupational information services, l) placement services, m) dealing with pupil irregularities, n) Others.

57. (School-Community Relations) Understand and apply practical strategies for the district-wide programming and monitoring of school-community relations functions.

The Functions: a) Information services to community, b) information services to mass media, c) handling requests for information, d) reporting pupil progress, e) use of school facilities for non-school groups, f) Others.
58. (Curriculum and Instruction) Understand and apply practical strategies for the district-wide programming and monitoring of instruction and curriculum functions.

The Functions:  a) Establishing curricular content and organization,  
b) selecting curricular materials,  c) relating curriculum to time, facilities and personnel,  d) articulating existing programs,  
e) exceptional children,  f) remedial instruction,  g) testing,  
h) instructional improvement,  i) diagnosing pupil learning difficulties, 
j) adult education,  k) use of instructional equipment,  l) Others.

59. (Staff Personnel Administration) Understand and apply practical strategies for the district-wide programming and monitoring of staff personnel functions.

The Functions:  a) Recruitment, selection, induction, orientation,  
scheduling, supervision, evaluation, promotion, retention and dismissal of professional and nonprofessional staff personnel,  
b) in-service education of professional and nonprofessional staff personnel,  
c) maintainance of staff personnel records,  d) dealing with irregularities in relation to staff personnel,  e) Others.

In the space below, specify other skills and/or areas of knowledge, related to administration and supervision, you feel you need or would like to acquire.

NOTE 1 1 1 1
(WHEN YOU HAVE FINISHED THE ASSIGNMENT IN THE GREEN SECTION, GO TO ITEM #11 ON PAGE 14 IN THE WHITE SECTION.)