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THE EFFECTS OF PLANNED INTERVENTION ON DISSIDENT TEACHERS' ATTITUDES TOWARD CAREER EDUCATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By
Kaare Theodor Jacobsen, B.A., M.A.

Reading Committee
Robert E. Taylor
J. Robert Warmbrod
Robert E. Campbell
Harold Starr

Approved By

[Signature]
Advisor
College of Education
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VITA

September 29, 1931 .............. Born - Farsund, Norway

1959 ........................ B.A., California State University of Northridge, Northridge, California

1959-1965 .................. Teacher, Vocational Education, Los Angeles Unified School District, Los Angeles, California

1965-1971 .................. Counselor, Los Angeles Unified School District, Los Angeles, California

1969 ........................ M.A., California State University of Northridge, Northridge, California

1971-1973 .................. Graduate Research Associate, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio

PUBLICATIONS


FIELDS OF STUDY

Major Field: Education

Studies in Vocational Education. Dr. Robert E. Taylor

Studies in Educational Research. Dr. J. Robert Warmbrod

Studies in Psychology. Dr. Robert E. Campbell
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INTRODUCTION

Origin and Importance of the Study

Within a society characterized by rapid social and technological change, the teaching process is a complex event. Information presented today may be outdated tomorrow. A teaching environment appropriate to one period of cultural transition may be inappropriate in another. The teacher's role is subject to considerable shifts requiring skills varying according to the time, the place, and the individual with whom the teacher is working.

We are living in a transitional age where today's youth are involved with more advanced kinds of thinking and valuing than any other group in history. How will arithmetic be taught when each elementary student will have his own pocket electronic calculator? How will history be taught when students can dial a number and view historical films on television screens, or retrieve microfiche pages from any of a million books? Jung\(^1\) of the Northwest Regional Educational Laboratory states that "educators will be living the answers to such questions in the coming years."

\(^1\)Charles Jung, "Instructional Systems for Professional Development," Theory Into Practice. Columbus: The Ohio State University, College of Education, 1972, pp. 276-277.
This is an age of change that requires new and rapid adjustment. Moffitt\(^2\) writes that

its impact on education is an ongoing challenge. It is the basic reason determining the need for continuous education for all people and particularly of all teachers. Without continuing study, teacher knowledge and teacher performance soon become obsolete.

Education is called upon to change. The best evidence available indicates clearly that educational change requires considerable teacher education and program revision. Teacher in-service education has received wide recognition as a major method of providing teachers the opportunity to increase efficiency, develop new skill, and provide for continual learning.

In-service education is a planned process for influencing teacher behavior with the intent of changing conditions and instructional practices in the classroom. Harris and Bessent\(^3\) give four propositions providing a conceptual framework for education to plan for and initiate change. They are:

1) In-service education is a process for change

2) Changes through in-service education take place in an organizational context

3) In-service education is a process for planned change

4) In-service education is one of several organizational changes and takes place through personnel development


In-service education represents interventions directed toward deliberate, planned changes. Harris and Bessent\(^4\) refer to planned change, using an agent of change—someone who examines the existing state in light of some future desired condition. The change agent then intervenes somehow to change events to reach a desired goal. The ultimate goal is to improve and make more effective the educational opportunities for children. The focus is on educational renewal procedures designed to facilitate individual and group growth of teachers within the public schools.

The characteristics of a successful program of staff development have been enumerated by Finnegan.\(^5\) Successful program characteristics are:

1) Designed to meet genuine needs of the educational staff, pupils, and citizens of the community, as determined by group study and judgment;

2) Planned and administered cooperatively with objectives clearly established;

3) Designed to provide help of a practical, concrete nature;

4) Designed to be continuous and planned on a long-term basis;

5) Considered an integral part of the educational process;

6) Designed to be action centered;

7) Based on sound principles of learning, and;

\(^4\)Harris and Bessent, ibid., p. 19.

\(^5\)Harry Finnegan, "Into Thy Hands...Staff Development," Theory Into Practice. Columbus: The Ohio State University, College of Education, 1972, p. 216.
8) Designed to provide a permissive atmosphere conducive to creativity.

In-service education cannot be viewed as a frill or an add-on activity to take place at the beginning of each school year. It must be considered an integral feature, woven into the ongoing instructional program and organizational fabric of the system. Fundamental to educational change strategy is total school staff involvement. If education is to meet the demand of the time, it must plan for change by involving the entire school staff. Gorman writes in the recommended guidelines for in-service development:

When all of the educational personnel involved with Career Education are a part of the in-service education program, then, it will be more likely that the program will have a positive enduring effect in the total educational environment.

Any school district considering in-service training needs for all their staff members is likely to face some difficult issues. Rapid educational change calls for continual in-service education of existing staff. School budgets are low in many districts and the cost of in-service education is increasing. As costs increase there will be pressure to limit in-service programs to those staff members who can profit the most. To exclude teachers from staff development may hinder the adoption process. Many educational changes are long lasting and need total staff involvement and support. This is

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especially true of the Comprehensive Career Education Model (CCEM), which represents a long-range plan to develop, test, and install a national career education system.

There is another inherent problem in the development and implementation of career education. The emphasis on an engineering effort in curriculum development could pose a problem of teacher noninvolvement. As more tested products are developed and installed, teachers may assume a passive resistive role in implementation.

Teacher resistance to change and general indifference to in-service education has been known for many years. Coon, in a study of attitudes of teachers and administrators toward high school reorganization, reached the conclusion that "teachers are highly resistant to significant curriculum change, more so than either administrators, students, or parents."

As a result of a study involving 247 selected schools of the North Central Association, Weber identifies the unprofessional attitudes of teachers as creating the greatest barrier to change. These attitudes stem from "a generalized feeling of opposition to change; a general disposition of indifferent inertia and complacency; the holding of tenure rights and the feeling that administrators assume

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8W. E. Weber, "Obstacles to be Overcome in a Program of Teacher Education In-service," Educational Administration and Supervision, Vol. 28, Nov. 1962, pp. 509-614.
the responsibility for educational changes and curriculum improvements."

This was confirmed by Berry and Murfin\textsuperscript{9} who state that

The teaching personnel toward whom in-service education is directed often create the greatest barrier to success of these programs. Indifference, negativism, resistance, lack of interest, apathy, complacency, and inertia may be identified as factors which sometimes limit individuals or whole faculties in efforts at growth through in-service techniques.

Sarason\textsuperscript{10} in observing the problem of change in a school, recognizes that "there will be groups that will feel obligated to obstruct, divert, or defeat the proposed change." In establishing priorities for theory of change, he states that

recognizing and dealing with this source of opposition is not a matter of choice, preference, or personal aesthetics. The chance of achieving intended outcomes becomes near zero when the sources of opposition are not faced, if only because it is tantamount to denial or avoidance of the reality of existing social forces and relationships in the particular setting.

A problem of greater magnitude is to design in-service education programs to deal effectively with the resistive personality. There has been little research dealing with the magnitude of change and personality types. Less research has been conducted on the personality that is resistive to influence. Goldstein and associates\textsuperscript{11} write that "surprisingly little interest has been generated in studying the char-

\textsuperscript{9}J. R. Berry and M. Murfin, "Meeting Barriers to In-service Education", \textit{Educational Leadership}, Vol. 17, No. 6, March 1960, p. 354.


acteristics of those who are resistive to influence." What adds to the problem is that resistance to influence is held in a high regard by many people in society. Pepinsky\textsuperscript{12} writes that resistance to influence is considered a positively valued trait in our culture at times indicating productive nonconformity. In contrast to the little research done to determine the characteristics of the resistive personality a great deal of research has been done on the conforming personality. In reviewing literature on the characteristics of the conforming personality, Blake and Mouton\textsuperscript{13} offer the following conclusions:

Results show that those who are more susceptible to conformity pressures are more likely to be submissive, low in self-confidence, show less nervous tension, score higher on authority scales, be less intelligent, less original, and to score on the simplicity end of the dimension of the complexity-simplicity scale.

An underlying purpose of this study is to point out the importance of gaining more knowledge and understanding of persons who are resistive to influence. The inability of educational decision-makers to discriminate between the conforming personalities and the early adopters emphasize the importance of developing teacher in-service programs that are specifically designed for teachers who are resistive to influence. The danger is that program innovators and educational decision-makers eager for positive staff support, may launch ahead with superficial


supporters who are not fully committed. Program innovators often look for this positive initial support to the exclusion of the resistive personality who may represent the long-term positive effect needed for total program adoption.

It is essential that staff developers recognize teacher resistance to influence as natural and devise programs to include them in the change strategy. The resistive personality should not be viewed in a negative perspective of being poor in the performance of his role. The investigator of this research views the resistive personality as being inner directed, possessing a firm philosophy that provides purpose and direction to life. Resistance to influence is characterized by individuals not actively seeking change, and therefore, are likely to be better adjusted and have reached a more satisfying state of personal affairs.

New techniques are needed for enhancing active participation of resistive personalities—to involve them not only physically, but also psychologically to the point of commitment. It is not enough to build a program of in-service education on cognitive learning principles or on the assumption that teachers feel a deep obligation to search for personal and professional improvement. Roberts\textsuperscript{14} writes that a principal cause of teacher in-service ineffectiveness is the failure to utilize what is known about behavioral change.

The attitude of a resistive or unattentive teacher can be changed

by subjecting them to a prescribed set of experiences. By careful
design, strategies can be developed to involve a resistive teacher in
discrepant activities that will induce favorable change toward the
adopting program. This is based on the research done by Festinger and
others, in which a planned method of intervention was introduced with
the specific intent of changing or positively modifying a person's
initial attitude.

Summary

This section emphasized the importance of teacher in-service educa-
tion as a planned process for influencing behavioral change with the
intent of changing conditions and instructional practices in the class-
room.  

In order for in-service education to have a more positively endur-
ing effect on the total educational environment, it is important that
the entire school staff be involved in a program of planned educational
change. Important to the process of planned change is recognizing
that many teachers often defend the traditional content and approaches
in education and resist change. Observers of the Spokane, Washington,
school system say that many educators are defensive and hesitant about
change and as a result create barriers to educational change.  

15 Ben M. Harris and Wailand Bessent, In-service Education. New

16 Harry Finnegan, "Into Thy Hands Staff Development," Theory Into
Practice. Columbus: The Ohio State University, College of Education,

17 Sarason, op. cit., p. 59.
in observing the problem of change in our schools, states that unless effective means are developed to deal with resistive teachers, there will be little chance of achieving intended outcomes. In other words, the success or failure of an innovative educational program depends a great deal on a staff development effort that is both purposive and responsive to district needs.

District staff members probably will have differing attitudes in terms of acceptance and commitment to career education. The major question posed by staff development personnel was how can a program of in-service education be operationalized to optimize the assimilation of career education? One way of solving this problem is to gain more knowledge and understanding about persons who are resistive to influence, and then develop effective strategies to involve them in the change process.

**Purposes of the Study**

The specific purposes of the study are described as follows:

1. To identify teachers in a local school district who are resistive to career education.

2. To field test an attitude change instructional module on a representative sample of teachers identified as being resistive to career education.

3. To compare the attitude change experienced by resistive teachers as a result of being selected for the following treatment conditions:
a) Attitude Change Module, designed on Festinger's theory of cognitive dissonance to include behavior change techniques.

b) Unit Installation Program, prescribed career education in-service program to prepare staff to implement a comprehensive instructional program.

c) Control group not involved in any career education teacher in-service program.

Definition of Terms

It is important that a number of terms be defined in relation to the way they are used in this study. A listing of these terms and their defintions follows.

Acceptance Scale

One of the three subscales on The Comprehensive Career Education Staff Development Questionnaire designed to measure acceptance of career education concepts.

Attitude Change Module

The term "Attitude Awareness Module" will be used synonymously and will pertain to an activity instruction unit designed to bring about specific behavior change in order to favorably change a teacher's attitude and feeling toward career education.

Change Orientation Scale

One of the three subscales on The Comprehensive Career Education Staff Development Questionnaire designed to determine the potentially innovative teachers who are most receptive to change.
Cognitive Dissonance Theory

A theory of cognitive consistency conceptualized by Festinger in 1957. His theory stresses the tendency toward consistency between an individual's belief system and his overt behavior. The theory incorporates the notion of dissonance, i.e., inconsistency between two cognitions. When such cognitive dissonance arises, the subject is motivated to dissonance reduction through changes in behavior or cognition.

Consonant Group

An experimental subgroup characterized as being opposed to career education and the adoption process.

Commitment Scale

One of three subscales on The Comprehensive Career Education Staff Development Questionnaire designed to measure staff commitment to the adoption of a program of career education.

Discrepant Essay Writing

A manipulative technique designed to encourage participation in overt behavior discrepant with one's private attitudes in the form of essay writing. Its main purpose is to produce an attitude change in a predicted direction.

Dissonance Group

An experimental subgroup characterized as being in favor of and supportive of career education and the adoption process.
Resistive

The term "dissonant" will be used synonymously and will pertain to teachers who scored in the lower quartile on the acceptance subscale of the "CCE Staff Development Questionnaire."

Role Playing

A technique designed to involve an individual to act out a social role other than his own. It is a means of "trying on" new behaviors in relatively safe circumstances; to explore and act out roles without commitment.

The Comprehensive Career Education Staff Development Questionnaire

An attitude scale designed primarily to provide information on target audiences for the development of new in-service strategies in terms of persuadability, attitude change, and commitment. This scale consists of three subscales which are: acceptance, commitment, and change orientation.

Videotape Recording (VTR)

An inexpensive technological innovation which provides instant and accurate feedback of personal interaction in the form of verbal and nonverbal communications. It provides a basis for reliable analysis and decisions about desirable behavior patterns and reinforces one's commitment to a particular given role.
Significance of the Study

Kiesler, et al., in a critical analysis of attitude change approaches, states that we need more field research on attitude change. They also state that many of the attitude studies conducted in the laboratory lose their predictive power in situations where other sources of variance are not so well controlled. This is a true experiment in a natural setting to gather information concerning the relative power of theoretical variables in influencing attitude change. It is designed to investigate the predictive power of dissonance theory in a school setting involving resistive teachers in a program of in-service education.

As career education programs have expanded in the last two years, there is a constant and heavy demand from educators at all levels throughout the country for copies of CCEM staff development materials. For staff development to meet the needs of those responsible for the implementation of career education programs, an accurate assessment of the present staff development programs must be made. Very little is known about the impact in-service education is having on the classroom behavior of teachers and their students. It is important that new strategies be developed to provide alternative programs that have been field tested under controlled conditions so that the merits of each program can be specified in terms of specific outcomes. This study

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will provide the CCEM Staff Development Component with information to assist in classifying products in terms of benefit cost factors and their impact on specific target audiences as related to attitude change.

A concentrated effort should be made to develop valid and reliable instruments to assess the existing knowledges and attitudes of significant target populations. The utilization of different subscales in The Comprehensive Career Education Questionnaire permits greater potential in interpretive power than a single summative score affords. The ability to generate a multidimensional attitude profile on acceptance of career related concepts, commitment to program implementation, and change orientation factors should enable staff development personnel and local educational personnel to make more realistic decisions regarding their career education efforts.

Sarason, in observing the problem of change in a school, recognizes that there will be groups who will be opposed to a proposed change. It is not enough to recognize that there will be opposition to change, but the development of effective strategies to include resistive staff in the change process is more important. The module designed for this study induces the participants to actively attend to the message of career education. As involvement increases, the participant must begin to deal with career education issues and make some basic

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19Sarason, op. cit., p. 959.
decisions regarding the worth of the program. In drawing upon what may be called the psychology of behavior change, this research is aimed at a better understanding of the components of attitude and behavior change.

A major focus of this research is to gain better understanding of the characteristics of the prospective adopter. Some research has been conducted on the "early adopter" and the characteristics of the change oriented personality. Massive research has been done to determine the characteristics of the conforming personality. Results show that the conforming personality is likely to be submissive, less intelligent, less original, and generally score high on authority scales. Change orientation is defined as an individual's predisposition or attitude toward change. Rogers\textsuperscript{20} states that early adopters seek peer approval, and may perceive that respect enhances their security. It is likely that due to the inadequacy of psychological assessment instruments there will be great overlap between the conforming personalities and the early adopters. The danger is that program innovators, eager to get positive staff support, may launch ahead with other superficial supporters who have not committed themselves to the adopting program.

A desired outcome of this study is to point out the importance of developing in-service programs that are specifically designed for

educational staff members resistive to change. Surprisingly little research has been generated to study the characteristics of those who are resistive to influence. Consequently, the resistive teacher is often viewed in a negative perspective of being poor in the performance of his role. The investigator of this research views the resistive personality as being inner directed with a firm philosophy that provides purpose and direction to life. Resistance to influence is characterized by individuals who are not actively seeking change, and therefore, are likely to be better adjusted, and have reached a more satisfying state of personal affairs. It is the investigator's belief that special effort should be made to involve persons resistive to influence in the adoption process because "once sold" on the merits of a program, they will provide greater credibility and have a more positive enduring effect in the total educational environment.

Limitations of the Study

In order to conduct this study, the following limitations were imposed:

1. One LEA was selected from among six sites cooperating with the CCEM developing and installation project. This site was selected on the basis of willingness to participate in the experiment, meeting size and time schedule criteria, and due to its close proximity to The Center for Vocational and Technical Education, The Ohio State University.
2. Subjects of the study consisted exclusively of K-12 teachers. Other educational staff such as counselors, administrators, and paraprofessional personnel were excluded.

3. Time equivalency of treatment conditions was not controlled for the unit installation in-service program. This treatment condition could extend from six hours to approximately eighteen hours depending upon the instructional unit being installed and the qualifications of the teachers.

4. Financial restraints restricted the number of subjects in the experiment thereby increasing the possibility of a sampling error.
II

REVIEW OF RELATED RESEARCH

This chapter contains the rationale and review of literature as related to the development of the instructional module and the research hypotheses. It is grouped into three categories: (1) Cognitive Dissonance Theory, (2) Rationale for Workshop Design, and (3) Research Hypotheses.

Cognitive Dissonance Theory

A person likes to think that his attitudes, beliefs, and related behavior form a consistent pattern. Incongruity between a person's private beliefs and behavior results in a sense of imbalance—what Festinger refers to as dissonance. There are several theories on the need to correct dissonance called cognitive consistency theories. They deal with perceived inconsistencies and assert that inconsistencies generate tension. They postulate that a person with dissonance will behave so that he maximizes the internal consistency of his cognitive system.

Festinger\textsuperscript{21} was the first to publish explicit formulation of dissonance theory in this 1957 volume, \textit{A Theory of Cognitive Dissonance}.

Abelson, et al.,\textsuperscript{22} states that Festinger's theory, more than any other, stresses the tendency of consistency between the belief system and overt behavior. One of the core postulates of this theory is that cognitive dissonance is a psychological tension having motivational characteristics. Festinger\textsuperscript{23} states that, "the existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance."

The theory of cognitive dissonance incorporates cognitive elements and their relationships. These are items of confirmation or cognition about oneself, one's behavior, or one's environment. The theory is concerned with the consequences of inconsistent elements such as "the knowledge that I smoke heavily" and "the knowledge that smoking causes cancer."

The theory has received much attention and has generated a great deal of research. Aronson\textsuperscript{24}, in a review of dissonance theory, states that the simplicity of the theory has caused proliferation of research. He said that the core of the theory is extremely simple and describes it:

\begin{quote}
Dissonance is a negative drive state which occurs whenever an individual simultaneously holds two cognitions (ideas, beliefs, opinions) which are psychologically inconsistent. Since occurrence of dissonance is pre-\end{quote}


\textsuperscript{23}Leon Festinger, op. cit., p. 3

sumed to be unpleasant, individuals strive to reduce it by adding 'consonant' cognitions or by changing one or both cognitions to make them 'fit together' better--i.e., so that they become more consonant with each other.

Although the theory of cognitive dissonance can be reduced to an incredibly simple statement, the theory is much more complicated and demands a closer look at its basic premises. It is important to emphasize that the relationship between elements need not necessarily be logically inconsistent or consistent. These could be psychological as well. As this theory is applied to teacher in-service education, the knowledge that one does not want to participate in continued in-service education, or has marked reluctance to do so, and participates in a resistive manner are consonant elements. The cognition that one does not wish to participate in continued in-service training, or marked reluctance to do so, and participates in a nonresistive manner are dissonant elements.\(^{25}\)

The notion of conflict became popular in psychology as early as 1935 when Lewin distinguished three kinds of conflict in human behavior. He introduced the terms approach-approach, avoidance-avoidance, and approach-avoidance. In this context Aronson\(^{26}\) challenges the notion that dissonance theory is another name for conflict theory. He states there are several differences.


\(^{26}\)Elliot Aronson, op. cit., p. 13.
Conflict occurs before a decision is made, dissonance occurs after the decision. During conflict it is assumed that an individual will devote his energies to a careful, dispassionate, and sensible evaluation and judgment of the alternatives. He will gather all of the information, pro and con, about all of the alternatives in order to make a reasonable decision. Following the decision, a person is in a state of dissonance—all negative aspects of X are dissonant with having chosen X; all positive aspects of Y are dissonant with not having chosen Y.

As Festinger\textsuperscript{27} and others have show, the weighing of alternatives is more realistic prior to the decision; after the decision there is great pressure to bring belief and action into balance. Dissonance reduction is a key principle in his theory. Dissonance is an unpleasant state of affairs that creates tensions that tend to motivate a person to reduce this inconsistency. Cohen\textsuperscript{28} lists three ways in which a person's induced discrepancies between cognitions and behavior can be reduced.

1. He can, in general, change any or all of the cognitions so they will lead more strongly to the expression made.

2. He can increase the felt importance of the intrinsic rewards or punishments that led to the discrepant behavior.

3. He can reduce or completely eliminate his dissonance by changing his private opinion so that it is more consistent with the expression made.

The major purpose is to deal with the psychological processes and predict the consequences of attitude change. Since dissonance can be


reduced by attitude change, we should be able to predict the amount of change as a function of variables that control the amount of dissonance created. Essentially this has implications for methods of reducing dissonance and for manipulating the degree of dissonance.

The formal question can be asked: What controls the magnitude of created dissonance and, therefore, the magnitude of consequent attitude change? Cohen\(^2^9\) suggests that the most obvious control is the importance a person attaches to the cognitions in question. He states that:

Other things being equal, the more important to him his private opinions that lead him to engage in discrepant behavior, the greater will be the resulting amount of dissonance. In other words, inducing a person to express a discrepant position on an issue that is important to him will create more dissonance than inducing him to express a discrepant position on a trivial issue.

A second, more central determinant of the magnitude of dissonance is: the greater the justification for engaging in some act the less will be the dissonance associated with that act. The best known and most widely quoted study of this type was conducted by Festinger and Carlsmith.\(^3^0\)

In the experiment, sixty undergraduates were randomly assigned to one of three experimental conditions. In the $1 condition, the subject was first required to perform long repetitive laboratory tasks in an individual experimental session. He was then hired by the experimenter as an 'assistant' and paid $1 to tell a waiting fellow student (a stooge)

\(^2^9\)Cohen, op. cit., p. 332.

that the tasks were enjoyable and interesting. In the $20 condition, each subject was hired for $20 to do the same thing. Control subjects simply engaged in the repetitive tasks. After the experiment, each subject indicated how much he had enjoyed the tasks. The results show that the subjects paid $1 evaluated the tasks as significantly more enjoyable than did subjects who had been paid $20. The $20 subjects did not express attitudes significantly different from those expressed by the control subjects.

Dissonance theory interprets these findings by noting that all subjects initially hold that the tasks are dull and boring. The experimental subjects, however, know that they have expressed favorable attitudes toward the tasks to a fellow student. These two cognitions are dissonant for subjects in the $1 condition because their overt behavior does not 'follow from' their cognition of the task nor does it follow from the small compensation they received. To reduce the resulting dissonance, they change their cognition about the task so that it is consistent with their overt behavior. They become more favorable toward the tasks.

Subjects in the $20 condition, however, experience little or no dissonance, because engaging in such behavior 'follows from' the large compensation they are receiving. Hence, their final attitudes do not differ from those of the control group.

Another variable basic to the predictive power of the theory of cognitive dissonance is the variable of psychological commitment. This variable is related to the question of controlling magnitude of dissonance,
but has direct implications as a method of reducing dissonance. Commitment refers to the idea that "the pot of gold at the end of this endeavor is worth the price paid in effort." There are opposing viewpoints expressed clearly by Kiesler, who in discussing his recent work on commitment to consonant behavior draws two conclusions: (a) that commitment can vary independently of dissonance, (b) that commitment, in and of itself, has no motivating properties.

We need not wait very long for the controversy to develop as Harold Gerard, in his essay, disagrees with Kiesler's position, asserting that commitment is a necessary antecedent of dissonance. He presents evidence that choosing one alternative (i.e., committing oneself to give up the other alternative) arouses more dissonance than a mere statement of preference involving little or no commitment.

Commitment appears to be a scientifically useful term and must be conceptually distinguished from dissonance. At the present time, the term commitment has no conceptual status independent of that of dissonance. In the absence of an empirical base, Brehm and Cohen assume a person is committed if:

He has decided to do a certain thing, when he has chosen one (or more) alternatives and thereby rejected one (or more) alternatives, when he actively engages in a given behavior or has engaged in a given behavior.

In focusing upon the commitment variable, they argue two things

31 Kiesler, op. cit., p. 345.
32 Abelson, op. cit., p. 437.
are theoretically controlled. First, the commitment variable permits the specification of the existence of dissonance; second, it allows one to make more specific predictions on reduction of dissonance. An example of this specification of dissonance may be the following: if one eats a vegetable that he dislikes, we are more confident that dissonance exists than if he merely agrees to eat the disliked vegetable.

If the person perceives that the decision to commit himself to discrepant behavior is his, it will increase the probability of a favorable change in his attitude. A major construct in increasing a participant's commitment is the degree of choice for which the person perceives himself responsible. Several studies clearly suggest that the less justification (pressure, incentive, inducement, coercion, etc.) provided an individual for engaging in discrepant behavior, the more he perceives his decision as volitional, and the more dissonance is aroused.

An experiment by Cohen, Terry, and Jones\(^3\) demonstrates the importance of some prior decision in which the person commits himself to a general negative situation as necessary for the creation of dissonance. In this experiment, choice in exposure to counterpropaganda was varied and the person's opinion on a salient attitude dimension was measured. Half the subjects who were extreme in their opinions and half who were moderate were exposed to information which they know to be counter to their position; the other halves of these groups were given a choice about exposing themselves to the contrary information. After exposure,

their opinions were measured again. The results show that under conditions of low choice a direct resistance effect was obtained—the greater the discrepancy between the propaganda and the initial opinion, the less the attitude change. However, under conditions of high choice, expectations from dissonance theory were fulfilled—having chosen to expose themselves to contrary information, the greater the discrepancy between the information and the initial opinion, the greater the dissonance and consequent attitude change.

Research indicates that the factors involved in controlling the magnitude of dissonance created and the magnitude of consequent attitude change show that:

1. Inducing a person to express a discrepant position on an issue that is very important to him will create more dissonance than inducing him to express a discrepant position on a trivial issue.

2. The more compelling the reasons for taking the discrepant stand, the less will be the dissonance created by taking it.

3. The more compelling the reasons for taking a public stand that differs from what one really believes, the smaller will be the attitude change toward the expressed position.\textsuperscript{35}

The central hypothesis of the theory holds that the presence of dissonance gives rise to pressure to reduce that dissonance. The strength of this pressure is a direct function of the magnitude of the existing dissonance. It becomes essential that dissonance arousal become a major manipulative technique in order to predict dissonance

reduction. It is possible to arouse cognitive dissonance and increase commitment by employing role playing. The procedures require that the negatively attracted person act as if he was positively attracted to the situation.

In reviewing many of the early studies on role playing and attitude change, Goldstein, et al., found that "all pointed in the direction of progressive favorable change in the direction of the attitudes and behaviors represented by the roles played, as the role play procedure continued." He stated that "Liberman provided results in support of our basic theme, the influence of role playing on attitude change in a direction initially discrepant with the subject's own attitudes."

An investigation conducted by Janis and King is of major interest. College students were asked to listen to a speech presented by another student. At the same time they read the speech outline, or gave a speech on the assigned topic themselves. The subjects were instructed to play the role of a sincere advocate of the given point of view.

Three topics were assigned so that each subject spoke on (role played) one topic and was passively exposed to the other two. In all instances the position of the speech disagreed with the initial position of both the speaker and the listeners. A questionnaire to measure subject attitudes toward each of the three topics both before and after the experimental tasks was given. Attitude change scores derived from

36Goldstein, op. cit., p. 98.

these questionnaires indicated that speech givers showed more change toward the discrepant position represented by the speech than did the listeners.

Janis and King also report that the speech givers who showed most attitude change tended to have engaged in greater improvisation; they were also more satisfied with their performances. Thus, as is true of many careful investigations, this study answers one question (active participation via role playing does increase attitude change) and raises another (improvisation versus satisfaction as means of augmenting such attitude change).

Summary

The literature reviewed in this section emphasized the importance of inducing participants into discrepant behavioral situations in order to optimize attitude change. The examined research stated empirical evidence in support of role playing as an experimental technique for engaging subjects in discrepant behavior.

Festinger's theory of cognitive dissonance provided the theoretical base for this research. The theory incorporates the idea that incongruity between a person's private beliefs and his behavior will result in a sense of imbalance. The core postulate of the theory is that cognitive dissonance is a psychological tension having motivational characteristics. A number of researchers found that when a person is induced to take a behavioral stand contrary to his inner feelings, he may reduce the tension by making those cognitions (inner values) consistent with the behavior.
Operational Plan for Module Design

Many problems must be overcome in designing an attitude change module based on the empirical base of cognitive dissonance theory. One of the most difficult problems is addressed by Fishbein regarding the conditions of subject choice. He states:

The experimental fostering of the individual's belief that he has relative freedom of choice about whether or not he complies with the discrepant request is a major problem. If the person feels that he has been coerced, little dissonance and consequent attitude change will result. On the other hand, if subjects are actually allowed to agree or disagree freely with the request to comply, few may comply. After all, why should anyone agree to support a position with which he disagrees or engage in behavior which is unpleasant to him? To the degree that some people are allowed to refuse and some to comply, self-selection becomes a serious limitation of the experiment. Therefore, a great deal of experimental ingenuity must be exercised if the subject is to be made to feel that the choice is his, while at the same time the experimenter must be careful not to allow him to slip out of the experiment.

It must be emphasized that in order to apply cognitive dissonance theory in a practical program, one cannot just plan a teacher education workshop. One important point in designing such a program is that incentive, inducement, coercion, and authoritative techniques may not be used as manipulating strategies. They are likely to reduce the likelihood of an attitude change. Choice is an essential condition which precludes the complete autonomy of the subject to decide whether or not

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to participate and remain in the program.

Individual choice has been carefully considered in the planning strategy for involving resistive teachers in discrepant behavior. Choice points are structured at critical times to minimize coercion and experimental manipulation. Teachers have the opportunity to exercise free choice in whether or not to identify themselves on the pretest, which is an attitudinal questionnaire identified as a career education instrument. It is a basis for selecting the experimental sample.

Each participant was notified by personal letter mailed from The Center for Vocational and Technical Education. The teacher again had to exercise choice regarding participation in a career education workshop. Another critical choice point designed into the treatment permits the participant to choose his posture regarding the career education program. Each teacher chooses to defend or oppose the career education program. At no time during the experiment are the participants coerced to continue the program.

A second critical feature of the in-service education program is to employ dissonance-arousing manipulations to encourage involvement in learning activities inconsistent with private feelings. To be able to engage participants to support a position which is disagreeable requires a great deal of experimental ingenuity. There must be some justification for personal involvement in an unpleasant task but not to the point where the participant can disengage himself from the discrepant behavior.

The importance of role playing to induce attitudinal change has been verified by research. Role playing as an engaging technique in
discrepant behavior is emphasized by Kelly\textsuperscript{39} who states that role playing offers a person the opportunity of "trying on" new behaviors under relatively safe conditions. It is as if one has a protective mask to "explore his world without wholly and irrevocably committing oneself." As a subject continues to act discrepantly from his beliefs, he sees little prospect of publicly canceling out the discrepant behavior.

High commitment conditions exist when the participants are asked to record a statement on videotape. As the person views himself along with other group members, it becomes more difficult to neutralize his discrepant behavior. This is especially true in situations where free choice is used in structuring the experimental situation.

One of the significant features is to isolate the elements and maximize the dissonance between the two elements or cluster of elements. It is essential that a conscious effort be made to "block off" all methods of dissonance reduction except one, i.e., changing one's private position to coincide more nearly with the position expressed. To rule out the possibility that the experimental setting is creating dissonance, an initial encounter group experience is planned. Each participant is made to feel a part of the group through interaction, creating a safe environment in which to experiment.

Teacher workshops often appeal for acceptance of specific ideas or program information without presenting rival ideas. Dissonance can be aroused through defensive reactions on the part of the participants since

they are not given an opportunity to compare and view counter arguments. Hovland, et al., demonstrated that a two-sided program is more effective in changing the opinion of those initially opposed to the program. An experiment conducted by Tumsdaine and Janis clearly indicates that the subjects who received the two-sided communications are able to maintain the adopted attitude.

Rival ideas and comparisons are a major feature of the teacher education workshop. The importance of two-sided communications are emphasized by the instructional "hand-out" materials. Reading kits were prepared representing extreme pro and con positions on career education. Each participant chose a position and was given a packet with reading material to support him. In order to reduce suspicion regarding these positions, the program objectives specify learning of classroom teaching techniques (role playing and videotape recordings). The intent is to create the illusion that the content (career education material) is a secondary feature of the program. Although a subject chooses to take a position inconsistent with his private attitudes, dissonance arousal does not occur until an overt expression is made.

In many cases, participants do not possess the behaviors necessary for successful engagement in role playing within their response repertoires. Materials provided are oriented toward the types of behavior apparently

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desirable for the participant to assume. Model role playing situations are demonstrated, encouraging each participant to facilitate involvement. The carefully prepared materials provide a structure but also encourage spontaneity and individual improvisation. The salient feature of improvisation is that the individual reformulates the communication in his own words. It is possible that reformulation may give rise to a marked gain in comprehension, augmenting the chances that the communication will be influential.

The final critical point in behavior inducement occurs when the spontaneity and improvisations are internalized and dissonance reduction has been routed along the path to increase influence receptivity. Kelly⁴² in describing the importance of the influence of role playing on attitude change states that:

> When the client shows signs, either in rehearsal or outside, that he has momentarily forgotten that he was just acting, the therapist may assume that true elaborative behavior is taking place. This means that a process is in motion which tends to interweave the client’s new role constructs with the fabric of his main construction system.

True elaboration of the acting behavior is tested in the discrepant essay writing technique. Each participant is requested to write an essay on career education to present forcefully, persuasively, and originally a pro or con position. The purpose of this technique is to integrate his position with his area of classroom expertise. Each will maintain his original posture incorporating as many arguments as possible into the essay.

⁴²Kelly, op. cit., p. 410.
As a result of this workshop, it is expected that the teachers who are participating will show a positive attitude shift in favor of career education. The participants will be twenty subjects randomly selected from teachers within the Atlanta CCEM cooperating schools who scored in the lower quartile on the acceptance subscale of the staff development questionnaire.

A major construct in increasing a participant's commitment is the degree of choice the person perceives himself responsible for involvement in the workshop activities. Subjects are induced to self-select their posture regarding a pro or con position toward career education. This means that the twenty experimental subjects will self-select into two groups, each receiving different content materials, and, consequently, different treatment.

All subjects in the experiment are considered "dissident" since they were selected from the lower quartile of the acceptance attitude subscale. One half of the subjects will be involved in discrepant behavior since their position in favor of career education is not representative of their "measured" inner feelings. The other half of the subjects will be involved in consonant behavior since their selected position against career education is congruous with their "measured" inner feelings. Predictions based on cognitive theory cannot be made on this group. This group (the consonant group) can be considered "stooges", planted merely to be used for experimental manipulations.
Summary

This section reviewed some of the operational problems involved in designing an attitude change module based on cognitive dissonance theory. One of the most difficult problems is to gain a participant's approval to become involved with a disagreeable position. Since individual choice is an essential condition, a subject must perceive that the choice to participate in discrepant behavior is his. Several studies clearly indicate that the degree of choice for which a person perceives himself responsible, the greater the dissonance and consequent attitude change.

Empirical evidence generated from cognitive dissonance theory agree that the following theoretical variables are essential in optimizing attitude change:

1. Choice: Subjects must perceive that it was their own decision that involved them in a discrepant role.

2. Discrepant Involvement: Activities must be structured to engage participants in learning activities inconsistent with private feelings.

3. Dissonance Arousal: Psychological tension is increased when it becomes difficult for a subject to justify or disclaim subsequent behavior.

4. Commitment Conditions: High commitment exists when subjects record their positions on videotape and view themselves along with other group members.
5. Internalization of Discrepant Behavior: When improvisations are momentarily forgotten, private opinions are being adjusted to be more consistent with the expressed behavior.

**Research Hypotheses**

Teachers in the Atlanta, Georgia, CCEM schools were given the attitude inventory "CCE Staff Development Questionnaire." Scores on the acceptance subscale were used to categorize the teachers into quartiles ranked from high to low. One hundred and thirty-seven teachers scored in the lower quartile; sixty of them were selected at random and assigned randomly to one of three treatment conditions.

a) Twenty to the "Attitude Change Module" designed from Festinger's theory of cognitive dissonance.

b) Twenty to the unit installation training prescribed by the CCEM Staff Development Unit Installation Program.

c) Twenty to the control group that received no treatment.

Three major hypotheses were tested in an effort to determine the effect of planned intervention in terms of behavior modification techniques on the acceptance, commitment, and change orientation of resistive teachers. These were:

1) Subjects participating in the "Attitude Change Module" workshop will score higher on the posttest subscales of acceptance, commitment, and change orientation that teachers participating in the CCEM Unit Installation in-service program and teachers in the control group.
2) Subjects participating in two workshops—the Attitude Change and the CCEM Unit Installation workshops—will score higher on the posttest subscales that subjects in the control group.

3) Subjects participating in the "Attitude Change Module" who self-selected a pro or con career education role playing position for the three treatment sessions will score significantly different on the posttest scores. The following sub-hypotheses were tested:

a) Subjects who self-select the pro career education role playing group will score higher on the posttest of the acceptance subscale than teachers who self-select the con role playing group.

b) Subjects who self-select the pro career education role playing group will score higher on the posttest of the commitment subscale than teachers who self-select the con role playing group.

c) Subjects who self-select the pro career education role playing group will score higher on the posttest of the change orientation subscale than teachers who self-select the con role playing group.
This chapter describes the procedures that were used to obtain data for the study, the treatment conditions, and the development of the CCE Staff Development Questionnaire.

Description of the Sample

All teachers in the CCEM cooperating schools of Atlanta, Georgia were administered the attitude inventory "CCE Staff Development Questionnaire". Their scores on the acceptance subscale of the questionnaire were used to categorize them into quartiles ranked from high to low. The lower quartile, consisting of one hundred and thirty-seven teachers in Atlanta is the subpopulation from which the sample was drawn. Experimental subjects were sixty teachers randomly selected from the population of teachers who scored in the lowest quartile on the acceptance subscale of the CCE Staff Development Questionnaire.

The subjects in the sample utilized in the study were assigned to three treatment conditions. Forty subjects were randomly selected by the investigator using a table of random numbers. These subjects were assigned to the "Attitude Awareness Module" workshop and the other twenty were assigned no treatment during the experimental period. The third treatment group, consisting of twenty subjects, was not randomly assigned
by the investigator. These subjects were among others selected by The
Institute for Educational Development (IED) to field test CCEM curriculum
units. This random sample included all of the CCEM cooperating schools
in Atlanta, Georgia. This level of treatment consists of unit installation
in-service training prescribed by the CCEM Staff Development Unit
Installation Program.

The random sample selected by IED included subjects from each quartile
(high to low) as measured by the acceptance subscale of the CCE Staff
Development Questionnaire. The sample to be used in this study is made
up only of those subjects randomly selected by IED who fall within the
lower quartile as measured by the questionnaire.

Experimental Design

Based upon the observation that experimental subjects consisted of
sampled teachers from the lower quartile of the acceptance subscale of
the staff development questionnaire, a true experimental design was
used to control for rival hypotheses in the study of attitudes.

The design that best fits the experimental conditions is described
by Stanley and Campbell as Design No. 4, The Pretest-Posttest Control
Group Design. Design No. 4 takes this form:

\[
\begin{array}{c}
R \quad 0_1 \times 0_2 \\
R \quad 0_3 \quad 0_4
\end{array}
\]

An elaboration of this design identifying the dependent variable
and the levels of treatment is the following design:

\[^43\]Donald Campbell and Julian Stanely, Experimental and Quasi-Experi-
Description of Treatment Conditions

Attitude Awareness Module

The Attitude Awareness Module (Appendix A) was developed by the investigator to be used with teachers who are resistive to career education. The focus of this module is to involve resistive teachers in CCEM related behaviors to an extent that teacher attitudes are changed in a favorable way in support of career education. The workshop consisted of involving teachers in overt behavior as described by the technique of role playing, videotape replay, and essay writing structured around teachers' roles in career education. The module is designed on Festinger's theory of cognitive dissonance to include behavior change techniques.

In the Attitude Awareness Module, the participants self-selected a position for or against career education. The subjects who selected a favorable position were "dissonant" since their overt behavior was inconsistent with their measured attitude toward career education. The
consonant group was made up of subjects characterized as opposed to the adopting program. They were acting in a role playing situation consistent with their measured attitudes. All were required to maintain their postures consistently throughout the experiment, engaging in role playing activities to "try on" new behaviors in a relatively safe environment. Planned lectures on change (see Appendix B), participation in micro-lab activities (see Appendix C), and role playing (see Appendix D) helped create this safe environment.

Selection of pro and con positions was restricted so that there were equal numbers in each category. Engaging a participant in a discrepant role was a critical aspect of the experiment. Experimental ingenuity was required in designing activities to engage subjects in their designated roles. As a subject self-selected a role, his position was reinforced with stimulus material supporting his chosen position. This material was abstracted to provide an immediate repertoire of behavior patterns (see Appendix E).

The subjects self-selected into teams, sitting in chairs color coded by pro and con positions in groups of five. These groups became teams engaged in a structured role playing situation (see Appendix F). Role playing situation two was distributed (see Appendix G). As a subject selected a role consistent with his position, a "Role Abstract" card was issued to personalize the prescribed role (see Appendix H). The remaining sessions of the experiment consisted of role playing activities that encouraged individual improvisation. These activities included a format for developing role playing situations (see Appendix I).
and the role playing self-rating scale (see Appendix J).

Another critical aspect of the experiment was individual commitment to a role in the sense that undoing, discouraging, or uncommitting oneself from discrepant behavior was made difficult. High commitment conditions existed when the participants were asked to record a statement on videotape. The subjects were told that at the next session, each team would role play for fifteen minutes and be recorded on videotape. Stimulus materials were distributed as a means of stabilizing the individual's new perspective. A videotape instruction sheet (see Appendix K) was distributed along with in-depth material supporting their role. Each participant was given a bound manual containing in-depth material in support of his chosen position. These manuals contained extreme positional papers bound in the color code that identifies the person to a pro or con position (see Appendix L).

The final critical point in behavior inducement occurs when spontaneity and improvisation are natural. Each participant was requested to write an essay on career education to present forcefully, persuasively, and originally his role playing position (see Appendix M). Self-rating procedures were introduced (see Appendix N).

True elaboration of the acting behavior was tested in the final activity of the third session. Subjects were given free choice to take any position they wished to interface career education materials with their areas of classroom expertise. This was evaluated in terms of role stabilization.
Unit Installation Program

The focus of the unit installation in-service program is an orientation to the CCEM, understanding the CCEM curriculum program, preparing to teach instructional units, and evaluation and feedback procedures. The program consists of both printed stimulus materials and audiovisuals.

The materials contained in the unit installation program were produced by the CCEM Staff Development personnel. The in-service package consists of an instructional plan, suggested resource materials, transparencies, and an implementing plan. The information is contained in a binder as well as in kit form developed primarily for the purpose of helping in-service coordinators plan and conduct in-service programs for instructional staff who will field test career education curriculum materials.

The program is designed for a six hour session, but it can be adapted to local circumstances. Individual follow-up instructional sessions are planned with the respective building coordinators. The six hour session, including the individual follow-up sessions and the classroom time allowed to teach a unit, is estimated to require 18-24 hours of teacher time. This is equivalent to the eighteen hour in-service program specified in the Attitude Awareness Module.

Development of the CCE Staff Development Questionnaire

Introduction

The response measure used in this study is a Likert-type attitude questionnaire.

scale called The Comprehensive Career Education Staff Development Questionnaire. It has three purposes: (1) a pretest-posttest to measure the magnitude of attitude change toward career education, (2) a selection criterion to identify the population of teachers from which a sample will be drawn, (3) to generate a multidimensional attitude profile of educational staff toward career education and change orientation.

The questionnaire consists of three subscales identified by factor analysis of two existing scales. The scales are: The CCEM Attitude Survey Inventory developed by The Institute for Educational Development (IED), an affiliate of The Educational Testing Service, Princeton, New Jersey; and The Measurement of Change Orientation of Vocational Teachers developed by Earl Russell at The Center for Vocational and Technical Education at The Ohio State University.

Description of the Scale

The IED, under contract with CVTE, developed the CCEM Attitude Survey Inventory in January 1972. The purpose of the scale was to help program personnel and school officials identify career education attitudes held by six local school districts cooperating with the project. It was administered to 4000 professional staff in Pontiac, Michigan; Hackensack, New Jersey; Atlanta, Georgia; Mesa, Arizona; Jefferson County, Colorado; and Los Angeles, California. Approximately 85 percent of these staff members were teachers. Computation of a factor analysis on teacher responses resulted in two subscales. Appendix 0 represents the combination of items with relatively high loadings in the respective factors. These scales represent two of the three subscales incorporated
into the CCE Staff Development Questionnaire.

The third subscale included in the questionnaire comes from Russell's study, "The Measurement of the Change Orientation of Vocational Teachers." Russell studied the identification of vocational teachers who are likely to be the first to implement changes in instructional programs. The study's purpose was to develop and test an instrument to measure the change orientation of vocational teachers to identify potential innovators and those receptive to change.

A general factor scale identified by factor analysis, consisting of 21 items was found by Russell to be a good predictor of change orientation of vocational teachers. Ten items were selected from this general factor to be included as the third subscale in the questionnaire.

Technical Consideration

This section will review the construction of the CCE Staff Development Questionnaire and the generally accepted ways of judging the quality of the instruments. It will include details on the development of both IED's Inventory and Russell's Change Orientation Scales. The validity and reliability will be discussed in relation to the attitude measure, CCE Staff Development Questionnaire, used in this study.

CCEM Attitude Survey Inventory

Professional evaluation personnel at IED who were familiar with the

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development of attitude survey instruments developed the CCEM attitude survey inventory. They formulated items directly related to the unique learning activities of career education that operationalized the general career education concept. They qualified the items by the difference between a career education program and a traditional curriculum, and then scrutinized the items generated in terms of what career education should be.

As an additional check of content validity, IED prepared, critiqued, and edited a draft instrument. They further modified the instrument, using a similar process conducted by the cooperating school district personnel. After going through these preliminary checks, the instrument contained fifty-four items.

The next desirable step was to obtain a criterion-related validity check of the instrument. Since a valid external criteria was nonexistent, IED intends to subject the inventory to a construct validation effort. The procedure is based on items embedded in a larger questionnaire. This includes additional items related to the respondent's exposure to career education ideas and activities. Construct validity was based on the logic that the greater the individual's exposure to the concept of career education, the more pronounced and stable his attitude toward the concept.

Change Orientation - Vocational Teachers

Russell developed the instrument, Change Orientation of Vocational Teachers, to identify teachers who could invent and initiate new programs and to differentiate those teachers who are change-oriented from those
who are not. He developed the instrument using the Thurstone method of equal-appearing intervals and scored with a modified Likert procedure. Russell constructed eight subscales relating to specific programs in vocational education, with change presumed to be inherent in all of the scales.

Fifty Ohio vocational teachers were randomly divided into four groups to write items of the subscale. They generated approximately one hundred and sixty statements per subscale. The teachers submitted the six hundred items to personnel at CVTE for final selection of sixty items per subscale.

The sample for this study was composed of vocational teachers representing "early adopters" and "laggards" in thirty-eight states, with one hundred and twenty-five teachers in each group. Seventy-eight percent of the "early adopters" and sixty-nine percent of the "laggards" submitted usable returns. Data from the two groups were compared in estimating construct and concurrent validity and obtaining reliability assessments. Additional evidence of construct validity was obtained by comparing the "known groups" on scores from scales for assessing personality attributes believed to be related to change orientation.

Application of factor analysis to teachers' responses to the two hundred and forty statements in the eight subscales permits investigation of the psychological structure of change orientation. Examining factor loadings based on item correlations identified a general factor of twenty-one items representing the final instrument. The twenty-one item revised instrument was found to have a Kuder-Richardson Formula 8 reliability of .91.
CCE Staff Development Questionnaire

The CCE Staff Development Questionnaire consists of three subscales derived from IED's CCEM Attitude Survey Inventory and Russell's Change Orientation Measure of Vocational Teachers (see Appendix P). This section will discuss the development of this scale.

The utilization of these different subscales within the CCE Staff Development Questionnaire permits greater potential in interpretive power than a single summative score affords. The ability to generate a multidimensional attitude profile should give prospective users a broader picture of the attitudes held by respondents with whom staff development personnel are concerned. It will enable local educational personnel to make more realistic decisions regarding their career education efforts.

The first step in developing the questionnaire was to modify IED's attitude scale. Computation of factor analysis to the 2800 teacher respondents permitted the reduction of the original fifty-five items to thirty, resulting in two factors. The relatively high loadings built on item intercorrelations demonstrates that these factors are powerful discriminators of groups and should most efficiently measure the factors (see Appendix O). This suggests that attitudes toward career education can be measured by two factors representing two points on an affective continuum internalization. Krathwohl[^47] states that at the lowest level of valuing is typically called a belief, i.e., merely accepting a value. At the highest level the term "commitment" or

"conviction" is more appropriate than belief.

Krathwohl, et al., found the term "attitude" included objectives with a wide range of behavior. He states

On the one hand, it is used to describe the involvement of the student who is willing to grant that he has a positive feeling about something when he is asked about it. At the other extreme, it is expected that his commitment is such that he goes out of his way to express it and even seek instances in which he can communicate it to others.

In order to determine which factor represents acceptance and which factor represents commitment, ten CCEM staff were requested to categorize items from each factor (see Appendix Q). The result of this survey indicated that factor 1 be labelled the acceptance scale and factor 2 the commitment scale.

Subscale 1, the "Acceptance Scale" consists of eighteen items. Table I gives the internal consistency computed using the Kuder-Richardson Formula 8. The reliability is .89.

Krathwohl characterizes an attitude on the acceptance level as an abstract concept of worth that is internalized deeply enough to be a consistent controlling force on behavior, and that the person is perceived by others as holding the belief or value.

Subscale 2, given in Table 2, has been labelled the commitment scale and consists of twelve items with a Kuder-Richardson Formula 8 of .81. Krathwohl, et al., describes belief at this level as involving a high degree of certainty. The ideas of "conviction" and "certainty beyond a shadow of a doubt" help to convey further the level of behavior intended.

\[^{48}\text{Krathwohl, ibid, p. 149.}\]
### TABLE 1

**ACCEPTANCE SCALE**

**MEANS, STANDARD DEVIATIONS AND RELIABILITY**

Mean = 46.31, Standard Deviation = 10.53, Reliability = .888

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Mean</th>
<th>S.D.</th>
<th>Item-Test R</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2.32</td>
<td>1.18</td>
<td>0.543</td>
</tr>
<tr>
<td>5</td>
<td>2.28</td>
<td>1.07</td>
<td>0.476</td>
</tr>
<tr>
<td>10</td>
<td>2.21</td>
<td>0.88</td>
<td>0.473</td>
</tr>
<tr>
<td>14</td>
<td>2.75</td>
<td>1.26</td>
<td>0.484</td>
</tr>
<tr>
<td>24</td>
<td>3.02</td>
<td>1.13</td>
<td>0.605</td>
</tr>
<tr>
<td>27</td>
<td>2.06</td>
<td>0.86</td>
<td>0.570</td>
</tr>
<tr>
<td>28</td>
<td>2.57</td>
<td>1.01</td>
<td>0.529</td>
</tr>
<tr>
<td>32</td>
<td>2.08</td>
<td>0.88</td>
<td>0.555</td>
</tr>
<tr>
<td>34</td>
<td>2.11</td>
<td>0.87</td>
<td>0.669</td>
</tr>
<tr>
<td>35</td>
<td>2.27</td>
<td>0.83</td>
<td>0.568</td>
</tr>
<tr>
<td>36</td>
<td>2.31</td>
<td>0.94</td>
<td>0.672</td>
</tr>
<tr>
<td>38</td>
<td>2.63</td>
<td>1.04</td>
<td>0.506</td>
</tr>
<tr>
<td>39</td>
<td>2.36</td>
<td>0.87</td>
<td>0.573</td>
</tr>
<tr>
<td>40</td>
<td>2.03</td>
<td>0.73</td>
<td>0.485</td>
</tr>
<tr>
<td>41</td>
<td>2.32</td>
<td>1.08</td>
<td>0.643</td>
</tr>
<tr>
<td>43</td>
<td>2.24</td>
<td>0.84</td>
<td>0.531</td>
</tr>
<tr>
<td>45</td>
<td>2.15</td>
<td>0.89</td>
<td>0.461</td>
</tr>
<tr>
<td>48</td>
<td>2.44</td>
<td>1.02</td>
<td>0.627</td>
</tr>
</tbody>
</table>

### TABLE 2

**COMMITMENT SCALE**

**MEANS, STANDARD DEVIATIONS AND RELIABILITY**

Mean = 41.12, Standard Deviation = 6.91, Reliability = .802

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Mean</th>
<th>S.D.</th>
<th>Item-Test R</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3.04</td>
<td>1.22</td>
<td>0.461</td>
</tr>
<tr>
<td>4</td>
<td>3.61</td>
<td>1.16</td>
<td>0.546</td>
</tr>
<tr>
<td>6</td>
<td>3.65</td>
<td>1.13</td>
<td>0.507</td>
</tr>
<tr>
<td>9</td>
<td>3.79</td>
<td>1.01</td>
<td>0.428</td>
</tr>
<tr>
<td>13</td>
<td>3.75</td>
<td>1.04</td>
<td>0.467</td>
</tr>
<tr>
<td>25</td>
<td>3.13</td>
<td>1.13</td>
<td>0.534</td>
</tr>
<tr>
<td>26</td>
<td>2.75</td>
<td>1.17</td>
<td>0.519</td>
</tr>
<tr>
<td>31</td>
<td>3.63</td>
<td>0.93</td>
<td>0.556</td>
</tr>
<tr>
<td>33</td>
<td>3.92</td>
<td>0.93</td>
<td>0.582</td>
</tr>
<tr>
<td>42</td>
<td>3.27</td>
<td>1.13</td>
<td>0.593</td>
</tr>
<tr>
<td>47</td>
<td>3.12</td>
<td>1.15</td>
<td>0.585</td>
</tr>
<tr>
<td>49</td>
<td>3.47</td>
<td>1.13</td>
<td>0.540</td>
</tr>
</tbody>
</table>
The third subscale utilizes items from Russell's instrument, The Measurement of the Change Orientation of Vocational Teachers. It is designed to measure change orientations of vocational teachers related to specific goals and functional areas of vocational education.

The purpose of including a change orientation subscale in the CCE Staff Development Questionnaire is to determine whether a relationship exists between subscale scores. Research indicates that there are many teachers who view vocational education unfavorably or have biases in regards to education for employment. Hoyt\(^\text{49}\) attributes these images and perceptions held by those outside the field of vocational education as formed primarily on the basis of the fragmented curriculum that exists in most schools. Since it is likely that biases will be reflected in an attitude scale constructed largely on work ethic philosophy, this subscale was included to measure change orientation without reference to vocational education.

The instrument was modified by selecting ten items that do not have reference to occupational education or vocational education. These items were selected from Russell's final instrument of twenty-one items which were identified by factor analysis from a pool of two hundred and forty original items contained in eight subscales of his questionnaire. These ten items which comprise a Change Orientation subscale on the Comprehensive Career Education Staff Development Questionnaire were found to have a Kuder-Richardson Formula 8 reliability.

of .89. Table 3 provides data on item-test correlation of Russell's data for this subscale as related to the total score on the instrument.

**TABLE 3**

**CHANGE ORIENTATION SCALE**

**MEANS, STANDARD DEVIATIONS AND RELIABILITY**

Mean = 14.45, Standard Deviation = 4.04, Reliability = .894

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Mean</th>
<th>S.D.</th>
<th>Item-Test R</th>
</tr>
</thead>
<tbody>
<tr>
<td>133</td>
<td>0.79</td>
<td>0.61</td>
<td>0.693</td>
</tr>
<tr>
<td>145</td>
<td>2.01</td>
<td>0.68</td>
<td>0.633</td>
</tr>
<tr>
<td>147</td>
<td>0.86</td>
<td>0.65</td>
<td>0.662</td>
</tr>
<tr>
<td>150</td>
<td>0.96</td>
<td>0.64</td>
<td>0.718</td>
</tr>
<tr>
<td>189</td>
<td>0.91</td>
<td>0.56</td>
<td>0.603</td>
</tr>
<tr>
<td>192</td>
<td>1.78</td>
<td>0.54</td>
<td>0.670</td>
</tr>
<tr>
<td>193</td>
<td>1.83</td>
<td>0.61</td>
<td>0.738</td>
</tr>
<tr>
<td>197</td>
<td>1.75</td>
<td>0.57</td>
<td>0.672</td>
</tr>
<tr>
<td>207</td>
<td>1.74</td>
<td>0.56</td>
<td>0.693</td>
</tr>
<tr>
<td>210</td>
<td>1.84</td>
<td>0.55</td>
<td>0.694</td>
</tr>
</tbody>
</table>

Although the original scale was designed to measure change orientation of vocational teachers, the resulting analysis suggests that the instrument can be used to measure level of change activity of teachers outside of vocational education.

The twenty-one item general factor scale was crossvalidated with existing scales in order to obtain more precise construct validity. Data in Table 4 show the relationship between scores on the general factor scale and selected variables in Russell's study compared with the revised instrument, the ten item change orientation scale. These correlations were obtained by using Russell's data.
### TABLE 4

**CORRELATIONS OF SCORES ON THE GENERAL FACTOR AND CHANGE ORIENTATION WITH SELECTED VARIABLES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>( r ) with General Factor Score</th>
<th>( r ) with Change Orientation Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of occupational experiences (other than teaching)</td>
<td>.217*</td>
<td>.152</td>
</tr>
<tr>
<td>Number of unique or unusual features in instructional program</td>
<td>.179</td>
<td>.166</td>
</tr>
<tr>
<td>Rokeach Dogmatism Scale</td>
<td>-.215*</td>
<td>-.216*</td>
</tr>
<tr>
<td>McClosky Conservatism Scale</td>
<td>-.361**</td>
<td>-.377**</td>
</tr>
<tr>
<td>Dye Local-Cosmopolitan Scale</td>
<td>-.346**</td>
<td>-.324**</td>
</tr>
<tr>
<td>Rotter Internal-External Control Scale</td>
<td>-.071</td>
<td>-.030</td>
</tr>
<tr>
<td>Total of Eight Subscale Scores</td>
<td></td>
<td>.812</td>
</tr>
</tbody>
</table>

* \( p < .05 \)
** \( p < .01 \)

The correlations "\( r \) with Change Orientation Score" in the above table are consistent with Russell's findings with exception of the "number of occupational experiences (other than teaching)" which recorded a considerably lower correlation coefficient. This relatively low correlation can be explained by considering the nature of the samples. The sample in this experiment represents teachers from all educational disciplines. It is expected that vocational teachers will have a higher number of occupational experiences than non-vocational teachers. An additional correlation study was made comparing the ten item scale with
Russell's original eight subscales yielding a correlation coefficient of .812.

The concurrent validity of the general factor scale was determined by comparing scores of the "known groups" on the number of unique or unusual features in instructional program. In comparing the "known groups" of early adopters and laggards of this variable, statistical significance was reported beyond the .001 level.\textsuperscript{50}

The criteria for validating the questionnaire are the unique and unusual features teachers have incorporated into their instructional programs. This data was collected from items 12 and 13 on Russell's questionnaire.\textsuperscript{51} Upon close examination, the questions appear to have equal applicability to all subject areas within the educational setting and are not restricted to only vocational teachers.

The results of this analysis indicate that the devised subscale has sufficient reliability and validity and is a good discriminator of change orientation of educational staff.

Appendix R relates items on The Comprehensive Career Education Staff Development Questionnaire with each subscale, namely the acceptance, commitment, and change orientation scales. The subscript "a" indicates reverse scoring weights of items on the subscales. Appendix S is a replication of the forty item questionnaire demonstrating optimum score on all items.

\textsuperscript{50}Russell, op cit., p. 25.

\textsuperscript{51}Russell, op cit., p. 119.
Data Collection and Analysis

The unit installation in-service program was conducted simultaneously with the teacher involvement workshop. Each treatment period lasted one month. Questionnaires were administered to teachers in their own schools via a staff member designated CCEM staff development responsibilities. Two weeks after treatment, each participant was requested to complete the CCEM Staff Development Questionnaire which was then analyzed by CVTE/CCEM in Columbus, Ohio.

The pretest-posttest control group design was used in the experiment. To determine the proportion of variance of the criterion that existed prior to the experiment and to eliminate this proportion from the final analysis, the analysis of covariance was used.

The analysis of covariance is a form of analysis of variance that tests the significance of the differences between means of final experimental data by taking into account and adjusting initial differences in the data.\textsuperscript{52}

The use of analysis of covariance assumes that the dependent variable is measured on at least an interval scale, and that the samples are independent random samples from normally distributed and equally variable populations having the same means and homogeneity of regression.\textsuperscript{53}

Since the samples were drawn randomly, there is no reason to believe


that the sample means and variability deviate significantly from the parent population. One very important assumption underlying the analysis of covariance statistic is that the relationship between the two variables is linear. These assumptions were considered in the experimental design. All reasonable precautions were exercised in meeting the assumed conditions.
PRESENTATION AND INTERPRETATION OF DATA

Introduction

The purpose of this chapter is to describe the findings of the investigation. The criterion measure consisted of an attitude measure with three subscales. The statistical test employed in the analysis of data was the one way analysis of covariance. The pretest was used as a covariate. A detailed description of this statistic was described in chapter three.

Analysis of Experimental Data

Comparison of Teacher Attitude by Levels of Treatment Measured by the CCE Staff Development Questionnaire

The one way analysis of covariance was performed to test the null hypothesis that no significant differences exist in the attitude of teachers as a result of treatment measured by the acceptance, commitment, and change orientation subscales of the Staff Development Attitude Questionnaire. The analyses are presented in Tables 1, 2, and 3. The means and standard deviation for the pretest and posttest scores are listed by levels of treatment. The resultant F-ratio on each of the three subscales did not exceed the critical value at the .05 level. Thus, the data supported the null hypothesis that no significant difference
exists in the three levels of treatment, namely, the Attitude Change Module, the Unit Installation Program, and the control group which was not subject to any treatment. The data does not support the first research hypothesis.

TABLE 5

ANALYSIS OF COVARIANCE: POSTTEST SCORES ON TEACHER ACCEPTANCE SUBSCALE

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest Mean</th>
<th>Posttest SD</th>
<th>Adjusted Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Change Module</td>
<td>19</td>
<td>57.37</td>
<td>3.45</td>
<td>61.63</td>
<td>10.26</td>
<td>61.29</td>
</tr>
<tr>
<td>Unit Installation Program</td>
<td>18</td>
<td>56.72</td>
<td>5.74</td>
<td>59.72</td>
<td>9.44</td>
<td>59.75</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>56.25</td>
<td>5.48</td>
<td>61.25</td>
<td>7.24</td>
<td>61.50</td>
</tr>
</tbody>
</table>

Analysis of Covariance (Pretest Score as Covariate)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>Adjusted DF</th>
<th>Adjusted Mean Square</th>
<th>F-Ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>38.80</td>
<td>2</td>
<td>19.40</td>
<td>0.268</td>
<td>n.s.</td>
</tr>
<tr>
<td>Within</td>
<td>38.43.74</td>
<td>53</td>
<td>72.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3882.54</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 5

ANALYSIS OF COVARIANCE: POSTTEST SCORES ON TEACHER ACCEPTANCE SUBSCALE

Means, Standard Deviations, and Adjusted Means

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest Mean</th>
<th>Posttest SD</th>
<th>Adjusted Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Change Module</td>
<td>19</td>
<td>57.37</td>
<td>3.45</td>
<td>61.63</td>
<td>10.26</td>
<td>61.29</td>
</tr>
<tr>
<td>Unit Installation Program</td>
<td>18</td>
<td>56.72</td>
<td>5.74</td>
<td>59.72</td>
<td>9.44</td>
<td>59.75</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>56.25</td>
<td>5.48</td>
<td>61.25</td>
<td>7.24</td>
<td>61.50</td>
</tr>
</tbody>
</table>

Analysis of Covariance (Pretest Score as Covariate)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>Adjusted DF</th>
<th>Adjusted Mean Square</th>
<th>F-Ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>38.80</td>
<td>2</td>
<td>19.40</td>
<td>0.268</td>
<td>n.s.</td>
</tr>
<tr>
<td>Within</td>
<td>38.43.74</td>
<td>53</td>
<td>72.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3882.54</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 6

ANALYSIS OF COVARIANCE: POSTTEST SCORES ON TEACHER COMMITMENT SUBSCALE

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest Mean</th>
<th>Posttest SD</th>
<th>Adjusted Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Change Module</td>
<td>19</td>
<td>46.63</td>
<td>4.73</td>
<td>44.37</td>
<td>7.47</td>
<td>44.70</td>
</tr>
<tr>
<td>Unit Installation Program</td>
<td>18</td>
<td>44.44</td>
<td>6.17</td>
<td>41.89</td>
<td>9.32</td>
<td>41.16</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>42.60</td>
<td>5.22</td>
<td>43.60</td>
<td>5.36</td>
<td>43.95</td>
</tr>
</tbody>
</table>

Analysis of Covariance (Pretest Score as Covariate)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>Adjusted DF</th>
<th>Adjusted Mean Square</th>
<th>F-Ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>125.32</td>
<td>2</td>
<td>62.66</td>
<td>1.262</td>
<td>n.s.</td>
</tr>
<tr>
<td>Within</td>
<td>2630.90</td>
<td>53</td>
<td>49.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2756.22</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 7

**ANALYSIS OF COVARIANCE: POSTTEST SCORES ON TEACHER CHANGE ORIENTATION SUBSCALE**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>SD</th>
<th>Posttest Mean</th>
<th>SD</th>
<th>Adjusted Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Change Module</td>
<td>19</td>
<td>37.37</td>
<td>3.33</td>
<td>38.11</td>
<td>3.70</td>
<td>37.97</td>
</tr>
<tr>
<td>Unit Installation Program</td>
<td>18</td>
<td>36.78</td>
<td>5.21</td>
<td>36.72</td>
<td>7.40</td>
<td>36.76</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>36.55</td>
<td>4.91</td>
<td>37.05</td>
<td>5.32</td>
<td>37.15</td>
</tr>
</tbody>
</table>

**Analysis of Covariance (Pretest Score as Covariate)**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>Adjusted DF</th>
<th>Adjusted Mean Square</th>
<th>F-Ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>14.25</td>
<td>2</td>
<td>7.12</td>
<td>0.220</td>
<td>n.s.</td>
</tr>
<tr>
<td>Within</td>
<td>1713.98</td>
<td>53</td>
<td>32.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1728.23</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Comparison of Teacher Attitude by Posture, Pro or Con, Within the Change Module as Measured by the CCE Staff Development Questionnaire

The one way analysis of covariance was performed to test the null hypothesis that no significant difference exists in the attitude of teachers who self-selected themselves into the pro role playing group as compared to those teachers who self-selected themselves into the con role playing group as measured by acceptance, commitment, and change orientation subscales of the CCE Staff Development Questionnaire. The means, adjusted means, and standard deviations for the pretest and post-test scores are listed by levels of treatment. The F-ratio on each of the dependent variables is listed in Tables 4, 5, and 6.

TABLE 8

ANALYSIS OF COVARIANCE: POSTTEST SCORES ON TEACHER ACCEPTANCE SUBSCALES FOR PRO & CON POSITIONS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest Mean</th>
<th>Posttest SD</th>
<th>Adjusted Posttest Mean</th>
</tr>
</thead>
<tbody>
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<td>Pro</td>
<td>10</td>
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<td>65.30</td>
<td>8.15</td>
<td>67.90</td>
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<td>57.56</td>
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Analysis of Covariance (Pretest Score as Covariate)

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<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>Adjusted DF</th>
<th>Adjusted Mean Square</th>
<th>F-Ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
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<td>559.02</td>
<td>6.29</td>
<td>&lt;.05</td>
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<tr>
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<td>Total</td>
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TABLE 9

ANALYSIS OF COVARIANCE: POSTTEST SCORES ON
TEACHER COMMITMENT SUBSCALE FOR PRO & CON POSITIONS

Means, Standard Deviations, and Adjusted Means

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest Mean</th>
<th>Posttest SD</th>
<th>Adjusted Posttest Mean</th>
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<tbody>
<tr>
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<td>43.40</td>
<td>5.18</td>
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<td>7.87</td>
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<tr>
<td>Con</td>
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<td>41.78</td>
<td>3.99</td>
<td>41.11</td>
<td>5.36</td>
<td>41.88</td>
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Analysis of Covariance (Pretest Score as Covariate)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>Adjusted DF</th>
<th>Adjusted Mean Square</th>
<th>F-Ratio</th>
<th>Significance</th>
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<tr>
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<tr>
<td>Total</td>
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TABLE 10
ANALYSIS OF COVARIANCE: POSTTEST SCORES ON
TEACHER CHANGE ORIENTATION SUBSCALE FOR PRO & CON POSITIONS

Means, Standard Deviations, and Adjusted Means

<table>
<thead>
<tr>
<th>Group</th>
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<th>SD</th>
<th>Posttest Mean</th>
<th>SD</th>
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<td>Pro</td>
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<td>38.85</td>
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<td>Con</td>
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<td>3.45</td>
<td>37.22</td>
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<td>37.28</td>
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Analysis of Covariance (Pretest Score as Covariate)

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The resultant F-ratio on the acceptance variable exceeded the critical value at the .05 level of significance. The data supported the rejection of the null hypothesis that there is no difference in teacher attitudes as a result of posture pro or con career education. Hypothesis three, teachers who self-selected the pro career education role playing group will score significantly higher on the posttest results than the con group, was supported. A significant F-ratio was not observed for the commitment and change orientation variables. The data supported the null hypothesis that no significant difference exists as a result of maintaining a pro or con
posture toward career education as measured by the commitment and change orientation subscales of the CCE Staff Development Questionnaire.

**Summary of the Analysis**

Three hypotheses were tested in this experimental study. The results of the findings pertaining to each of the hypotheses were presented in tables one through six.

The data presented in tables one through three supported the acceptance of the first null hypothesis: no significant differences exist in teacher attitudes as a result of participation in the Attitude Change Module compared with teachers participating in the CCEM Unit Installation In-service program and the group not participating in any CCEM in-service program.

The data presented in tables one through three also support the acceptance of the second null hypothesis: no significant differences exist in the attitudes of those teachers who participated in either the Attitude Change Module or the Unit Installation In-service Program than the control group that did not participate in any CCEM in-service program.

The data presented in tables four through six supported the rejection of the third null hypothesis: no significant differences in the attitudes of teachers as a result of self-selecting into pro or con positions as measured by the commitment and change orientation subscales. Significant differences do exist between pro and con positions as measured by the acceptance subscale of the CCE Staff Development Questionnaire.
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Before citing specific conclusions, a brief review of the problem and methodology is presented for re-examination. Findings will then be summarized, followed by conclusions and recommendations.

Summary

The Problem and Methodology

In-service education is a planned process for influencing teacher behavior with the intent of changing conditions and instructional practices in the classroom. As educational change occurs, attempts must be made to involve all teachers in an organized program of in-service education. In planning in-service activities, it is important to recognize that many teachers often defend the traditional content and approaches in education and resist change. Unless effective means are developed to encourage the resistive teacher to attend in-service education programs for the purpose of change, there will be little chance of achieving intended outcomes. The problem is that staff development specialists and program developers have not developed effective in-service strategies to influence the behavior change of resistive teachers. Therefore, the purpose of this study is to develop an in-service attitude change module, to field test it in order to compare short-term effects of this method of intervention...
on the attitude of dissident teachers.

The study was designed to compare the attitude change experienced by a resistive teacher as a result of being selected to field test a CCEM installation unit and undergo planned unit installation in-service education, and the effects of using a planned intervention module in the form of behavior modification in changing the attitudes of resistive teachers compared with a group of teachers not involved in any CCEM in-service education.

All teachers in the CCEM cooperating schools of Atlanta, Georgia were administered the attitude inventory, CCE Staff Development Questionnaire. Their scores on the acceptance subscale of the questionnaire were used to categorize them into quartiles ranked high to low. The lower quartile, consisting of one hundred and thirty-seven teachers in Atlanta, represented the population from which the sample was drawn. Experimental subjects were sixty teachers randomly selected from the population of teachers who scored in the lowest quartile in the acceptance subscale of the CCE Staff Development Questionnaire.

The sample utilized in the study was assigned to three treatment conditions. Twenty teachers were assigned to the attitude change workshop, twenty teachers were assigned to the Unit Installation Program, and twenty were assigned to a control group. The participants in the attitude change workshop were permitted to self-select either a pro or con position during the first workshop setting. Upon making a selection, each participant was required to maintain the chosen posture for the duration of the three day workshop.
Findings

Findings are summarized below for each of the hypotheses regarding attitude change resulting from the three treatment conditions.

Hypothesis 1 - The first hypothesis stated that subjects participating in the Attitude Change Module workshop will score higher on the post-test subscales of acceptance, commitment, and change orientation than teachers participating in the CCEM Unit Installation In-service Program and the control group.

Results of the one way analysis of covariance on each dependent variable for the three treatment conditions indicated that teacher attitude change was not influenced significantly by the effects of the Attitude Change Module. The null hypothesis was accepted, and it was concluded that there was no significant difference between attitude change and type of in-service education.

Hypothesis 2 - The second hypothesis stated that subjects participating in two workshops--the Attitude Change and the CCEM Unit Installation Workshops--will score higher on the posttest subscales than the control group.

The results of a one way analysis of covariance did not show any significant differences as a result of participating in CCEM in-service education. It is concluded that there is no evidence to support the research hypothesis that change in acceptance, commitment, and change orientation is due to treatment intervention. The data obtained by comparing the mean scores of all three groups clearly support the acceptance of the null hypothesis.
The acceptance of null hypotheses one and two suggest that if the CCEM staff development orientation session has been somewhat unsuccessful in changing or modifying a teacher's initial attitude toward CCEM, then planned intervention needs to be introduced. The planned intervention field tested in this study was designed to permit the participants in the Attitude Change Module to self-select a pro or con position on career education and maintain this posture throughout the three day workshop. Although no significant difference was obtained by comparing the mean scores of all three groups, there is the possibility that the subsample "con group" may counteract the attitude change experienced by the "pro group" who self-selected a role playing position in support of career education. The third hypothesis investigates the possibility that there is a difference in attitude change for the subsamples with the Attitude Change Module.

**Hypothesis 3** - The third hypothesis stated that subjects participating in the Attitude Change Workshop who self-selected the pro career education role playing group will score higher on the posttest than teachers who self-selected themselves into the con role playing group.

A one way analysis of covariance was employed to test for significant differences among the means of the scores of subjects maintaining either a pro or con posture throughout the Attitude Change workshop. Results showed an F-ratio which was significant at the .05 level as measured by the acceptance subscale of the CCE Staff Development Questionnaire. Subjects maintaining a pro posture during the three day workshop demonstrated a significant attitude change; namely, the pro group adjusted
mean was computed at 67.9 as compared to the con group adjusted mean of 54.7. The research hypothesis was supported, and it was concluded that there was a statistically significant difference in the attitude of teachers who self-selected a con role playing position in the Attitude Change workshop.

The commitment variable was the only other variable having a F-ratio approaching significance. A high F-ratio was found to exist between the pro and con subsamples as measured by the commitment variable, but it was not significant at the .05 level of significance. The hypothesis was not supported with a possible explanation that the lack of significance might be due to the size of the sample. Generally, samples smaller than size thirty are to be avoided in parametric statistics. Restraints made it necessary for the investigator to experiment with samples smaller than recommended. Since sampling error tends to be larger for smaller samples, a replication of this experiment with larger samples is recommended.

The change orientation variable remained essentially unchanged as a result of treatment. No significant differences were found to exist between the self-selected pro and con treatment groups as measured by the change orientation variable.

**Conclusions**

Taking into consideration the limitations outlined in chapter one, this section presents conclusions which were drawn from experimental findings in the previous chapter.
1. Resistive teachers can be influenced to change their attitudes in a specific direction as a result of planned intervention developed on the theoretical framework of Festinger's theory of cognitive dissonance.

2. A cognitive in-service program designed to provide educational staff information about career education and instructional skill for field testing instructional units is not effective in positively modifying the attitudes of resistive teachers.

3. Active participation via role playing does increase attitude change. Evidence substantiates that both the pro and con role playing groups experienced attitude change consistent with their role. However, in order to directionalize a positive change in resistive teachers, discrepant role playing must be induced.

4. Teachers who self-select a position favorable to career education and maintain that posture through a series of role playing exercises experience a short-term attitude change.

5. The subscales acceptance and commitment changed as a result of treatment whereas the change orientation variable remained unchanged throughout the duration of the experiment. The change orientation scale is a relatively stable attitude measure as compared to the subscales acceptance and commitment.

Recommendations for Further Study

Recommendations for further research based upon the findings of this investigation are described in the following paragraphs. It is
hoped that these recommendations will serve to stimulate further field research in the area of teacher in-service education and attitude change.

This study was limited to studying a sample of teachers from the CCEM cooperating schools in only one school setting. The district represents a below average income area in an urban setting. It is recommended that the investigation be replicated with teachers from diverse settings to ascertain cross social economic differences.

Based on present evidence of the validity and reliability of the CCE Staff Development Questionnaire, this instrument can be used to assess teacher resistance to career education. There is a need to conduct further research on the CCE Staff Development Questionnaire. The utilization of different subscales permits greater potential interpretive power in generating a multidimensional attitude profile. Further validation of these subscales should enable staff development personnel and local educator personnel to make more realistic decisions regarding their career education efforts.

Further research should be made to study the effects of various personality variables such as innovativeness, inner-outer directiveness, rigidity, and open and closed mindedness as correlated with the resistive personality. Surprisingly little research has been generated to study the characteristics of the resistive personality. It is recommended that a study be designed to determine perceived teacher effectiveness and the identified resistive teacher.

Additional research should be done to investigate the attitude
change experienced by resistive teachers as a result of being selected to assume a leadership role in the implementation process. This study did not find any significant teacher attitude change as a result of being selected to field test a CCEM installation unit and undergo prescribed CCEM in-service education.

There is a need to conduct a longitudinal study on the relative long-term effect of the measured attitude change. There must be some method devised to determine whether measured attitude change relates to overt behavioral change. Behavioral criteria should be developed to determine whether attitude change brought about by exposure to persuasive communications reflects a change in subsequent behavior.

A replication of this study is needed on a larger sample. Financial restraints restricted the number of subjects in the sample thereby increasing the possibility of sampling error.

A major question investigated in this study was to what extent will resistive teachers change their attitudes if permitted to self-select into a position contrary to their inner value systems. Choice points were structured throughout the workshop so that each participant would perceive that the decision to commit oneself to discrepant behavior was personal. A study needs to be conducted where subjects are randomly assigned to the role playing activities and compared with experimental conditions specified in this investigation.
Implications of the Study for Teacher In-service Education

Teachers and their activities in the classroom are the concern of the staff development effort within a school district. The ultimate goal of staff development is to improve and make more effective the educational opportunities provided for children. To accomplish this goal, educational renewal procedures are being designed to facilitate the professional growth of teachers and other staff members.

The public school teacher is characteristically goal oriented and wants to be involved in learning situations that are important to him. If an in-service education program for teachers is to be successful in effecting behavioral change, the program must be designed to meet the needs, interests, and desires of its clientele. A main objective of the CCEM Staff Development Component is to involve the educational staff in assessing their own needs and assuming responsibility for planning their own program.

Although desirable, it is not always possible for teachers to plan and design program strategies. Teacher training programs often stipulate learning outcomes that are required for program adoption. This emphasis on an engineering effort in curriculum development and program adoption may create teacher noninvolvement. District planning, accountability and specified program outcomes will tend to reduce the autonomy of the public school teacher. As more tested products are developed and installed, many teachers are likely to assume a passive, resistive role in the implementation process.

Teacher indifference and resistance to change must be considered when
designing in-service education programs. One of the important implications of this study is to recognize as natural a teacher's resistance to influence and accept it as a factor that must be considered when planning teacher in-service programs. Resistance is characterized by individuals not actively seeking change, who therefore, are likely to be better adjusted and have reached a more satisfying state of personal affairs.

Given this basic position, a major question can be asked. How can a staff development effort be operationalized to maximize the assimilation of career education in a particular school district?

There are many approaches that could be developed to address the above mentioned question. For example, it could be assumed that variations among district staff members in terms of their acceptance of and commitment to the philosophical and operational tenets are negligible and will not affect staff development outcomes. Neglecting these variations could be a mistake in terms of long-range planning. The danger is that program innovators and educational decision-makers who are eager for positive staff support, may launch a program with superficial supporters who are not fully committed. Program innovators often look for positive initial support and exclude the resistive personality that may represent the long-term positive effect needed for total program adoption.

A second approach could be to make a comprehensive attempt at creating a positive affective change in all staff members in a school district. The efficiency of this strategy also should be questioned. In most instances, efforts to induce large group affective changes of the type
desired tend to be time consuming, relatively ineffectual, and have low cost-effectiveness. Also, such efforts may have an effect opposite the one desired, especially when directed toward those staff members who already exhibit positive affective behaviors.

A final approach simply would be to involve only those staff members who are known to exhibit positive feelings toward the innovation, and then have them influence other members through normal interaction patterns. The third strategy also could be questioned on the grounds of its cost-effectiveness although such an approach probably could be developed. But only the one selected for this study will be described at this time. That strategy was selected because it was viewed (a) as being more cost-effective than the three strategies described above, (b) as being more directive in its focus, and (c) as being more adaptable in actual school settings.

The specific approach proposed can be described as follows:

1. First, every staff member in a target district will be administered a short scale that will be used to differentiate among them in terms of their orientation toward innovation or change.

2. Next, those staff members identified as not being change-oriented will be asked to participate in a special seminar that focuses upon changing their attitudes toward career education, per se, the CCE Attitude Change Module.

The specific instructional package that the low change-oriented staff members would be asked to complete before proceeding with the remainder of the staff development sequences has the following purposes:
1. To involve participants in learning activities that will increase the likelihood of continued participation in the in-service program.

2. To persuade participants to critically assess career education materials in order to integrate this information with their areas of expertise.

3. To engage participants in discrepant behavior inconsistent with their private feelings to optimize an attitude change favoring career education.

The selected strategy was developed from the theoretical base of Festinger's cognitive dissonance theory. The strategy utilizes empirical research findings that have demonstrated effective behavioral change. Then by careful design, this type of laboratory can be extrapolated into a practical teacher education seminar to affect a predicted change in teacher attitude. The field tested strategy reported in this study demonstrates that educators and researchers can work together in bridging the gap between behavioral science and education in the "real life" setting.
APPENDIX A

Attitude Change Module
LEADER PROCEDURES

1. Presentation of Workshop Objectives, Design and Schedule of Activities

2. Presentation of Classroom Teaching Techniques: Encounter, Role-Playing, Video-Taping, Essay Writing, Career Education

3. Participant will Develop Pro or Con Position on Career Education Concepts

4. Participant will Maintain Pro or Con Position Throughout Workshop

5. Participant will Select Career Education Information
WORKSHOP OBJECTIVES

1. To develop interpersonal competencies within a non-threatening environment.
2. To develop competencies in the techniques of role-playing, video tape replay, essay writing.
3. To be able to interface career education content with area of specialization.
4. Each individual will be personally involved in the processes.
5. Each individual will be permitted to choose his/her role regarding pro or con position on career education.
6. Each individual will have time to develop position for activities of role playing, essay writing.
7. Each individual will engage in role with audience, interact with audience, participate as audience.
8. Each individual will have opportunity for self-observation, self-rating for content and process.
9. Each individual will interface career education with subject area competency.
WORKSHOP DESIGN

INTRODUCTION

CHANGE IN SOCIETY AND EDUCATION

MICRO LAB ACTIVITIES

CLASSROOM ACTIVITIES

PERSONAL POSITIONS OF CAREER EDUCATION

SUBJECT AREA AND CAREER EDUCATION

CAREER EDUCATION PROGRAM DEVELOPMENT

ROLE-PLAYING TECHNIQUES

AUDIENCE OBSERVATION TECHNIQUES

VIDEO TAPE TECHNIQUES

SELF RATING TECHNIQUES

ROLE TAILORING TECHNIQUES

ESSAY WRITING TECHNIQUE

ESSAY RATING TECHNIQUE

WORKSHOP SUMMARY

EVALUATION
ATTITUDE CHANGE MODULE

WORKSHOP OUTLINE AND SCHEDULE

First Day

8:00 - 8:30 Coffee and Donuts
   1. Informal interaction, introductions, and get-acquainted session

8:30 - 8:45 Workshop Format Presentation
   1. Objectives, design, schedule of activities

8:45 - 9:45 Change Presentation and Discussion
   1. Resource Speaker
   2. Group discussion on change

9:45 - 11:00 Micro Lab Presentation and Activities
   1. Resource Speaker
   2. Micro Lab activities

11:00 - 12:00 Career Education Choices
   1. Presentation and discussion
   2. Introduce SRA Booklet, Role-Playing Methods in the Classroom
   3. Explanation and discussion of role-playing

12:00 - 1:00 Lunch = Leave Ledger Sheet in Room

1:00 - 1:30 Role-Playing: Instruction and Materials
   1. Demonstration of role-playing to total group
   2. Organize into two sub-groups

1:30 - 2:00 Role-Playing: Demonstration and Participation
   1. Role-playing warm-up activities

2:00 - 3:00 Role-Playing Career Education Situation #1
   By Sub-Groups
   1. Presentation of role-playing situation
   2. Role-playing and audience observation/Audience reaction and discussion
3. Role-playing and audience observation/
   Audience reaction and discussion. Reversed
   roles.

3:00 - 3:30 Critique and Discussion of Role-Playing
3:30 - 3:45 Introduction of Video Tape Techniques
3:45 Dismissed

Second Day
8:00 - 8:30 Coffee and Donuts
   1. Informal Interaction
8:30 - 9:00 Video Tape Introduction
   1. Demonstration by volunteers to total group
      using career education role-playing
      situation #1
   2. Replay of video-tape and discussion of
      video-tape techniques
9:00 - 9:30 Individual Video Tape Instruction and
   Participation
   1. Sub-group instruction
   2. Sub-group participation by all members
9:30 - 10:00 Video Tape Self-Rating Instrument
   1. Presentation of self-rating instrument
10:00 - 12:00 Role-Playing, Video Taping, and Self-
   Rating in Sub Groups Using Situation #2
   1. Role-playing and audience observation/
      Audience reaction and discussion/ Self-
      rating.
   2. Role-playing and audience observation/
      Audience reaction and discussion/ Self-
      rating. Reversed Roles
12:00 - 1:00 Lunch
1:00 - 1:30 Career Education Program Development Format
   1. Introduction to tailoring role-playing
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 8:00 - 8:30 | Coffee and Donuts  
Informal Interaction                      |
| 8:30 - 8:45 | Warm-up: Replay of Video Tapes from Last Workshop                        |
| 8:45 - 9:00 | Explanation of Essay Writing                                              |
| 9:00 - 11:00 | Selected Position Essay Writing and Evaluation  
1. Writing essay individually  
2. Evaluating essays individually                  |
| 11:00 - 12:00 | Share Essay in Sub Group                                                  |
| 12:00 - 1:00 | Lunch                                                                   |
| 1:00 - 2:30 | Individual's Actual Position - Essay Writing                             |
| 2:30 - 3:00 | Summary Activity                                                          |
| 3:00 - 3:15 | Evaluation                                                               |
LEADER PROCEDURES

1. Presentation on Process of Change

2. Total Group Discussion
PROCESS OF CHANGE

I. Change as a Natural Process
   A. Self-in-Situation Model
   B. Processes
      1. Openness
      2. Centeredness
      3. Ordering in Time
      4. Selecting for Fit
   C. Concepts
      1. Differentiation-Integration
      2. Dependence-Independence-Interdependence
      3. Experiencing

II. Change as Societal Modernization
   A. Pattern of American Society
      1. Democratic
      2. Humanistic
      3. Technological
      4. Capitalistic
      5. Educational Structure
   B. Stages of Modernization
      1. Issue Identification
      2. Volunteer Efforts
      3. Legal Recognition
      4. Compensatory Efforts
      5. Reorganization and Reform

III. Program Development Model

IV. Stages in Development Process
   A. Awareness
   B. Exploration
   C. Commitment
   D. Skill Development
   E. Skill Refinement
   F. Reaffirmation or Redirection
LEADER PROCEDURES

1. Presentation on Micro Lab to Participants Involved in Micro Lab Activities

2. Summary of Discussion
OUTLINE OF PRESENTATION

ON

MICRO LAB ACTIVITIES

I. Presentation - Micro Lab Activities in the Classroom
   A. Purposes
      1. Increase in communication skills
      2. Increase in self awareness
      3. Increase in awareness of others
      4. Increase in openness
   B. Types
      1. Movement
      2. Verbal
   C. Levels
      1. K-3
         a. Walk in woods
         b. Bubble trip
      2. 4-6
         a. Mirroring
         b. Fishbowl
         c. Who am I
      3. 7-9
         a. Sharing positive and negative feelings
         b. Puzzles
      4. 10-12
         a. Cooperation game
         b. Human potential

II. Activities
   A. Non-Verbal Milling
   B. Draw "Your Self"
   C. Bubble Trip
   D. Fishbowl

III. Summary Discussion
LEADER PROCEDURES

1. Leader Presentation of the Role-Playing Rationale
   Based on The Book Role-Playing Methods in The Classroom

2. Group Discussion of Role-Playing as a Technique

3. Demonstration of Role-Playing
STEPS IN THE ROLE-PLAYING PROCESS

1. Select the Role-Playing Problem
2. Conduct Warm-up Activities
3. Explain the General Role-Playing Situation
4. Explain the Specific Participant Roles
5. Explain the Audience Roles
6. Allow time to prepare Roles
7. Conduct Role-Playing Activities
8. Conduct Discussion on Role-Playing: Performance and Content
9. Conduct Self-Rating Scales on Process and Content
LEADER PROCEDURES

1. Introduce and Discuss Handbook, **Role-Playing Methods in the Classroom**

2. Discuss in Small Groups

3. Organize into Sub Groups

A. **Objectives**

1. **Introduction of Role Playing Technique**
   (5 min. presentation). Emphasize:
   a. Importance in the Classroom
   b. Importance in the Workshop

2. **Introduction of Pro-Con positions as related to the Workshop Objectives** (given to teachers in letter dated March 13, 1973).
   a. To develop competency in strategies related to CCEM unit installation
   b. To critically assess career education materials

B. In order to accomplish these objectives it becomes necessary for each of you to assume a role-playing posture. These postures will be maintained for the entire three day workshop. Your role will involve either a pro position (in favor of career education) or a con position - against career education. Your task in the role-playing situations will be to maintain an extreme position in all of your encounters.
In order to give you as much ammunition to maintain your role consistently we have developed a resource kit, one representing the positive position of career education and the other representing the negative position of career education. You may choose either position, and upon making a choice you will receive a kit to support your chosen position. Remember the purpose of the workshop is:

1. To explore the technique of role playing
2. To critically assess career education materials

C. Strategy

1. Prepare a ledger for participants to sign - one 'Pro' and the other 'Con' ledgers.
2. Locate ledgers in position and suggest teachers sign before a/during lunch.
3. Distribute (one to each participant) a copy of SRA role playing pamphlet.
4. Dismiss them to lunch and tell them that role playing activities will take place in the afternoon.
LEADER PROCEDURES

Use Materials According to Workshop Schedule or as Appropriate.
FORMAT FOR DEVELOPING ROLE PLAYING SITUATIONS
ON
CAREER EDUCATION PROGRAM DEVELOPMENT

I. Select Dimensions of the Situation You Wish to Include

With which institutions will you deal?

___ School(s)
___ Community
___ Business
___ Industry
___ Labor
___ Professional Organizations
___ Governmental Institutions
___ School System
___ Other ____________________________

With which part of the program will you deal?

___ Staff
___ Materials
___ Facilities
___ Strategies
___ Others ____________________________

At what stage of development is the program change?

___ Introduction: Initial stage of introducing change
___ Development: Further development of that which has been introduced
___ Reinforcement: Strengthening that which was developed

At what level of integration is the program change?

___ Separate Unit: To be added without changing current program
___ Guidance Related: To deal with some student change that will require some program change
___ Integrated: Integrated into current program, requires extensive change

Whom will you involve?

___ Teachers
___ Students
___ Parents
___ Administrators
___ Coordinators
___ Community Personnel
___ Others ____________________________
What vehicle will you use or include?

- Calendar
- Curriculum change
- Skill development
- Budget
- Others ___________________________

What problems will be addressed?

- Skill Development: Personal
- Skill Development: Professional
- Organizational
- Power: Budget, Selection, Evaluation
- Others ___________________________

II. Construct Situation

Use imagination
Build in as many dimensions as possible
Simulate real situations if possible

Example:

The Superintendent's office has sent a directive to the Principals that each school should begin to hold parent conferences on students' courses of studies. The planning of these courses of studies should include a consideration of career plans. This is the first time such a practice has been required.

The Principal and Career Coordinator are meeting with teachers, Subject Area Chairmen and counselors to decide how to build these conferences into the calendar. They must come up with a plan in one month. It must be acceptable to the teachers and they should be able to conduct the conferences expertly.

School A has been conducting field trips for a number of years. These have been local trips, requiring little funds and of short duration. The trips have been handled primarily by teachers with teachers cooperating.

There is a need to expand the field trip program to other sites at a further distance which will require longer periods of time and considerably more expense and assistance.

A meeting has been called of interested parents, community leaders, teachers, and Career Coordinator. The agenda includes consideration of obtaining funds, eliciting cooperation from community sites, reexamining purposes of field trips and proposing a way to attack the problem.
III. Describe Roles

Select as many roles as possible and still allow for interaction.

Build in an equal number of negative and positive roles if possible.

Pair off negative and positive roles if possible.

Assign one person to lead off role-playing.

Allow ample time for person to develop role before role-playing.

Example:

You are a teacher who has been in the system a number of years. Each year a new program is introduced which requires that you change. No one asks your opinion of the programs and you resent it. At times you have considered applying for another position or advancement but never seem to have the time to put it into operation.

You are a Career Coordinator who volunteered to help incorporate career education in your school. There are some aspects of the job you like and some you do not. While you like the challenge, you find it difficult to work with your teacher colleagues in any task which requires giving direction.

IV. Share Role-Playing Situations for Further Development and Refinement.

Check against possible dimensions that could be built in.

Check against similarity to real situations

Check for conflict potential.

Where possible interface problems which exist in the schools and community with career education and change.

Establish a consensus about the role-playing situation's potential for eliciting good role performance on both positive and negative sides of career education and change.

Anticipate the kinds of questions that might be asked of the audience following the performance of the roles.
V. Role-Playing Situation #1

The career program introduced into your school has an employability and work adjustment component in it. This means that students are to be assisted in developing traits and skills which would make them more employable and better able to make the initial adjustment to work. You have been asked to help teachers think through what this means for their classroom activities in each subject area.

You have called a meeting of teachers interested in helping you think through what this might mean for curriculum change. At this meeting are teachers who volunteer because they want to be there, teachers who were asked by the principal, and teachers who have other motives not obvious to you.

Roles:

PRO: Teacher A. You have been in the school two years. You like your work, the school and the students. The idea of trying something which would deal with problems of work adjustment and employability appeals to you but you aren't sure how it would fit into math and science.

CON: Teacher B. You have been teaching in this school for five years. It is time for a change. You are tired and currently dealing with some other problems. You have not been able to cope with the idea of career education in your planning and teaching but at this time cannot muster enough energy to fight it.

PRO: Teacher C. You are a leader in the school. You are looked up to by others and recognize this fact. You are not sure how career education and particularly this aspect really fits into education. You are supportive of the effort, however.

CON: Teacher D. You are also a leader in the school and well respected. Your concern is that much more time is being taken away from classes than can be afforded if important skills are to be developed by students. While you are not in disagreement with the career ideas being proposed, you are genuinely concerned about what this might mean for the overall program and would like to see the matter dropped at this time.
CON: Career Coordinator. This is your second year in this position. You have attended workshops and leader seminars to better understand what career education is all about. You know all the teachers in the school and are sensitive to the dynamics of interpersonal relationships. You tend not to want to "rock the boat" and are likely to forego a plan even if it is good rather than pressure teachers into something.

PRO: Principal. You have dropped into the meeting about halfway through. You are extremely interested in incorporating career education in all aspects of the program and have pressured your staff into accepting these changes. You genuinely believe in the concepts.

Role Playing Situation #2

As a part of Career Awareness you have been given the opportunity as a school staff to examine your own careers and the direction they are taking. A seminar on Personal-Professional Development has been offered to your staff with all members expected to attend a series of meetings during which personal and professional development issues are being raised.

At this particular session a battery of interest and personality tests have been administered, scored and are being interpreted. These are instruments which describe personality characteristics in a non-threatening way and show interests as they compare with others in various occupations.

At this point in the meeting the topic of one's suitability for his current career has come up.

PRO: Teacher A. All indicators would point to interest in another career other than teaching. Yet, you like teaching and are doing a seemingly competent job. You like the idea of looking at your own career.

CON: Teacher B. All indicators would point to lack of interest in teaching areas. No other strong interest appears which seems appealing to you either. You are threatened by what this might mean. You do not feel you are doing a good job in teaching. You are resentful that this kind of discussion would take place.
PRO: Teacher C. You know Teacher B well. You feel that Teacher B should reexamine teaching and look into other careers. You believe career education should also focus on the teachers.

CON: Teacher D. You're here because you have to be. You could care less about the matter.

PRO: Teacher E. Having taught until nearly retirement time it is not of interest to you how to change careers, but how to end this one with dignity. This idea of personal-professional development appeals to you, but you feel it should look at retirement as well as career change.

CON: Teacher F. As leader of this group, having a background in counseling and knowing the instruments used, you would like to have each person be able to express himself and his own unique situation. You have some pressing questions of your own to discuss. However, as leader you do not feel you can use group time to discuss them. They are of a personal nature.
LEADER PROCEDURES

Use Materials According to Workshop Schedule or as Appropriate.
VIDEO TAPING TECHNIQUE

The use of video taping and the replay of video tapes for observation and discussion has many uses. Educationally it provides for vicarious learning which can shorten the trial and error periods. It provides for a candid self-analysis. It can be reinforcing of those behaviors or roles which are enhancing. It increases interest in the activity being taped and the content of those activities.

The utilization of video equipment is increased and the flexibility of uses to which it is put increased when each individual is acquainted with the operation of the equipment and can manipulate it to serve his own needs. Instruction in the use of equipment and demonstrated skill in equipment operation is essential.

Ground roles for use of video tapes should be adhered to strictly. These should include the following:

1. Purpose of video tape should be for self-confrontation and self-rating.
2. All video tapes should be erased after workshop use.
3. No one other than participants should observe tapes unless permission is freely given by those on tape.
4. No reports should be made to other personnel from the tapes.
LEADER PROCEDURES

1. Leader Presentation on Video-Taping
   Rationale and Technique

2. Demonstration of Video-Taping Technique

3. Direct Video-Taping and Replay
ROLE PLAYING

SELF RATING SCALE: PROCESS

Overall Evaluation
Check One: ____ I liked it very much
____ I liked fairly well
____ I'm not sure whether I liked it or not
____ I didn't like it at all

As Part of the Audience I:
Check One: ____ was actively interested in participating
____ was attentive, watching and listening
____ was fairly inattentive
____ actively resisted participation, was disruptive

As a Role Playing Participant I:
Check One: ____ was out of the role more than in,
played the role very inadequately,
did not seem to feel the role

____ was out of the role quite a bit,
played the role in a shallow unfeeling way,
was mostly unspontaneous

____ was in the role most of the time I was supposed to be,
showed some feeling for the role,
was not especially creative or spontaneous in
bringing out different facets of the role

____ showed spontaneous,
was creative at times,
held the role well,
was in the role most of the time,
was able to play more than one role well.

____ showed real talent and skill in portraying role,
easily entered the role and created behavior,
demonstrated feelings for the role beyond what
was described in the briefing
You are at an integrating point in the Workshop. You have chosen to stay with a pro or con position on Career Education throughout the Workshop. During the next session your task will be to write an essay on Career Education from the same pro or con position. The purpose of this type of writing is to develop expository writing ability. Expository writing ability is the ability to present forcefully, persuasively and originally a position on one side of an issue or another. You will be asked to write on only one side of an issue.

You have been presented with Career Education information. You have developed a role playing situation on Career Education, tailoring it to fit your own views and ideas. You are familiar with your own subject area and grade level. Your essay incorporates your ideas, pro or con, as they evolved from these experiences, information or activities.

You should incorporate as many arguments as possible into your essay. You should make your arguments differ from each other and should clarify, exemplify and elaborate them. You will have an opportunity to evaluate your own essay using the essay self evaluation format. All career education materials which have been made available during the Workshop can be used to validate your arguments with the reasoning and research of others. This should be, however, an essay on your pro or con position.
For the most part, my statements during role-playing were consistent with my position on career education (pro or con). A consistent extreme position was maintained throughout the role-playing.

Comments:

For the most part, my statements during role-playing were inconsistent with my position on career education (pro or con). Many statements did not maintain an extreme position.

Comments:
ROLE PLAYING

SELF RATING SCALE: CONTENT

___ For the most part, my statements during role-playing were valid. They were statements that can be taken into account in forming intelligent opinion on the topic. They were statements supported by reasoning and evidence.

Comments:

___ For the most part, my statements during role-playing were invalid. These were statements not given detailed consideration either because of lack of evidence or because of errors of reasoning.

Comments:
SELF RATING SCALE: ESSAY WRITING

Number of arguments used in essay.

Fill in grid by rating each of your arguments on the variables listed.

Write in each space on the grid one of the following ratings: VERY GOOD, GOOD, AVERAGE, FAIR, POOR.

<table>
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<th>ARGUMENT #</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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APPENDIX B

Process of Change
PROCESS OF CHANGE

I. Change as a Natural Process

A. Self-in-Situation Model

B. Processes

1. Openness
2. Centeredness
3. Ordering in Time
4. Selecting for Fit

C. Concepts

1. Differentiation-Integration
2. Dependence-Independence-Interdependence
3. Experiencing

II. Change as Societal Modernization

A. Pattern of American Society

1. Democratic
2. Humanistic
3. Technological
4. Capitalistic
5. Educational Structure

B. Stages of Modernization

1. Issue Identification
2. Volunteer Efforts
3. Legal Recognition
4. Compensatory Efforts
5. Reorganization and Reform

III. Program Development Model

IV. Stages in Development Process

A. Awareness

B. Exploration
C. Commitment

D. Skill Development

E. Skill Refinement

F. Reaffirmation or Redirection
Change as a Natural Process - Notion of Change and Growth in Teacher Education

Growth is a natural process. All growth requires change, but change is not necessarily growth.

Growth occurs in human interaction—teachers working with youngsters, with other teachers, in their personal and professional lives. Generally, when a person is functioning well, the personal and professional lives are closely related. But if things are going badly, a person may compensate by working harder in one area to blot out the problems of another. This is change which is not necessarily growth.

Steps in Growth

The first step in growth is awareness. It may be awareness that someone is there and has a role. This is a gradual movement from unconsciousness to consciousness—the cognitive level.

Later there is a movement beyond mere consciousness to attention at a higher level—actually seeking information. This is exploration.

If a child wants to become a teacher, for example, he already knows something about teaching from his school experiences. As he grows older, he may begin to seek information on teaching as a profession, maybe before he leaves high school.

But it is needless for a child to make a critical decision at that point. Teachers should prevent him from becoming locked in too early.

Exploration is often skipped, partially because of fear of failure. It is a physical and emotional experience, in many cases limited by sanctions.
Another problem is that exploration takes time. In the past, teaching students never got to actually experience the classroom until their senior year of college—too late to back out.

Exploration is necessary before making a commitment. It is the only way to find out what is in store.

Natural Growth Processes

The first process of growth is increasing openness to people, ideas, activities, and at the same time to oneself, one's feelings, and one's body. Openness helps the feeling of belonging.

It is important to select the correct fit, eliminating conflicts without closing the mind. Growth also means ordering time and taking control of the situation.

Commitment

There are two levels of commitment. One is the public level. The other is the private. It is difficult to be able to do both public and private commitment well. Men have more trouble with commitment than women. Commitment means living in that spot.

A person is an open system. The inner self reacts with external situations. When a person makes a commitment, he locks into it and a change occurs. This change must occur internally and externally. This can be confusing to the person, but confusion is natural.

Skills

There are two kinds of skills—one to perform, the other to renew, to improve. In a sense, this is what teacher and career education are about. Once the skills are refined, a person is good at what he does.
Perhaps he becomes so good, the challenge is lost.

When this happens, the person must reaffirm his role or relationship at another level. He either functions at a higher level or redirects himself into another relationship or role. If a person stops at a certain level, he becomes stagnant, afraid of change.

The teaching profession does not allow for continual growth of the teacher. Throughout his teaching career, he usually works with one grade level. One possible way to grow in the teaching profession is to grow up through the grade levels. Another way is to become a teacher of teachers.

Erikson's eight stages of personal growth--basic trust year one, autonomy year two, initiative year three, can be applied to the teaching profession. A teacher starting out is, in a sense, learning intimacy with his work, learning the ropes. He may feel that he has all kinds of knowledge, but he is learning.

It is not until the teacher has been at it for a while that he can really be productive in a larger sense. When he retires, he may wonder if his life was fulfilled.

In our society, however, he may run the danger of feeling unfulfilled. In our society, we don't let persons finish with integrity.

Social Change

There is a ten year cycle of change--technological, humanistic, and capitalistic. When the ideas of human development are given to the school system, they are for humanism. When given to private industry, they are for capitalism. The same kind of module is being developed
for career education and private industry.

In the first step of social change there is a target, a population such as the impoverished or educationally disadvantaged. The target is career education for all.

In the second step, volunteers work to see if the task is feasible.

The government then recognizes the problem. It might agree, for example, that career education is doing an adequate job.

After recognizing the problem, government will demand that the target be hit, pumping money into programs. What happens with education, however, is that compensatory programs are set up, adding to what already exists.

Education can't reach the target, mainly because it was never intended to. No society is ever able to do this. As a result, the expectant people say that education has let them down.

Some educators react by pushing harder toward the goal; others say that things have gone far enough, it's time for a retreat. Programs must go all the way, or retreat to the starting point.

Current Cycle

The current cycle began in 1968 with the National Vocational Education Act, aimed at eliminating the disadvantages of everyone. What will happen when we reach the end of this cycle in 1978?

The result will be a compromise. Then someone will come along and throw another stone, upsetting what came previously. This is the process society goes through, how it changes and rejuvenates itself.

With career education, educators are trying to reorganize and reform, changing the structure to permit teachers more autonomy, more freedom, and more responsibility. The structure will be difficult to change.
APPENDIX C

Micro Lab Activities
OUTLINE OF PRESENTATION
ON
MICRO LAB ACTIVITIES

I. Presentation - Micro Lab Activities in the Classroom

A. Purposes
   1. Increase in communication skills
   2. Increase in self awareness
   3. Increase in awareness of others
   4. Increase in openness

B. Types
   1. Movement
   2. Verbal

C. Levels
   1. K-3
      a. Walk in woods
      b. Bubble trip
   2. 4-6
      a. Mirroring
      b. Fishbowl
      c. Who am I
   3. 7-9
      a. Sharing positive and negative feelings
      b. Puzzle
   4. 10-12
      a. Cooperation game
      b. Human potential

II. Activities

A. Non-Verbal Milling
B. Draw "Your Self"
C. Bubble Trip
D. Fishbowl

III. Summary Discussion
SESSION 1: 2 hours

The leader should participate and should be the first focus person.

1. Activity: Warm-up Exercise - Each participant is asked to choose a name by which he would like to be known for the three group meetings. If a person has difficulty giving up his own name, it is best to let him retain his own name. If sometime during the meetings a person wants to go back to his own name, that is permissible. Give the group a couple of minutes to think what name they wish to have. As each person shares his new name the group tries to guess why that name was chosen. The focus person is then asked why he choose his name.

Purpose: Group members begin to become acquainted with each other in a non-threatening way. Expectations from past identities can be put aside.

2. Activity: Group Discussion - Leader brings up the fact that this group is made up mostly (or sometimes entirely) of females. Ask the group how they feel about that arrangement.

Purpose: Once people have a chance to talk about the lopsided male/female ratio in the group, they feel better about it and it stops being a problem for them.
3. Activity: **Progressive Milling** - The leader directs this exercise and does not participate.

Leader begins by asking people to stand up and put the chairs against the wall. Ask the group to shake and stretch themselves out. "I'd like you to breathe deeply. Try to get in touch with what you are feeling right now. Notice where you are in relation to everybody else. Notice the spaces between you. Keep your eyes open, but don't talk."

"Mill around aimlessly, not caring where you go. Try to be in touch with your feelings and allow them to dictate where you walk. Try not to use your intellect too much at this point."

"What I'd like you to do is avoid contact as much as possible with the other people in the room. Don't look at them. Just act as you usually do when you're downtown, walking down the sidewalk. Try not to brush up against anyone. Avoid eye contact. As you're milling around, try to be aware of your feelings. Notice the space between you and the people around you. How does that space feel to you as you move around in it?"

(Give the directions slowly as people are moving. This part should last about five minutes.)

"Now I'd like you to begin just vaguely noticing each other as you walk around." (People begin grinning as they look at each other.)
"Now I'd like you to add something to this. Look into each other's eyes as you go by. While you're at it, why don't you notice what color eyes people have."

"Just touch each other now as you go by, on the shoulder or something like that." (People pat each other, usually quickly and gingerly.)

"Now, why don't you very lightly tug at each other's ear lobe as you go by." (This is usually fun and begins to break the ice.)

(Two or three minutes should be allowed to go by after each of the leader's interventions.)

Have people return to their group formation either in chairs or sitting on the floor. Have people tell how they felt during the milling. This can be a very short discussion.

Purpose: This is an exercise that proceeds in easy stages from isolation to involvement.

4. Activity: **Personal Disclosure** - the leader directs and participates in this exercise. The leader going first sets the tone for the amount of disclosure that is appropriate in the group. Any level of personal disclosure that is comfortable for the leader is appropriate.

"We are now going to move into what is called the personal disclosure or depth unfoldment experience. I will begin. I will have four minutes as will each person here in which to unfold myself in a personal enough way that you will
all become more acquainted with who I am as a person. During the first three minutes of our unfoldment experience, each of us will be involved in disclosing from early in life to the present moment those experiences which we feel have contributed to our being the person we are now. These need not be traumatic experiences, but may include them. The last one minute will be used in sharing the happiest moment in your life. If any person is unable to use the full four minutes, then the group will be invited to ask questions which will help us to know you better. Are there any questions? Then I will begin."

The personal disclosure experience is a four minute timed experience. The leader needs to enforce the time limit to protect each participant from taking an undue share of time and thus creating group hostility or personal anxiety. Either the leader or someone in the group should be appointed as time keeper.

**Purpose:** Group members begin to know each other in a more personal way. They start an investment of interest in each other which leads to the development of trust in the group. The leader begins to get a feel for the value system of each member.

**5. Activity:** Reinforcement of Empathy - When each group member has completed the unfoldment experience, the leader introduces the reinforcement aspect of the unfoldment.
"Now we want to test your potential to 'be with each other and to listen to each other. We are going to start with me and I'm going to ask that the group remember as much as you can about what I disclose of myself during my personal disclosure experience. When we have finished with me we'll move to the person on my right and go around the group remembering as much as we can about each person here." It is important that verbal feedback be given to each member. Therefore, the leader will need to move the group on to the next person just as soon as the recall has been given. The leader may wish to end the recall with any person by asking, "Have we forgotten anything, Carol?"

**Purpose:** This experience tends to deepen empathy by saying to each participant that there are persons who have heard even the most minute of details. It also reinforces the participants' potential to listen.

**6. Activity:** **Closure** - Ask for any comments from the group on how they felt about the session.

Explain that at the end of each session they are being asked to fill in two forms. Everyone, including the leader will fill in the forms before the group breaks for the evening. When the forms are completed, one member of the group should be appointed or volunteer to collect the forms, seal them in the envelope, and send them to
an appointed place the next day or as soon as possible. Distribute the two instruments and choose a person to deliver them.

**Purpose:** Closure officially ends a group process and gives everybody the feeling that this session is definitely over.
APPENDIX D

Steps in Role Playing
STEPS IN THE ROLE PLAYING PROCESS

1. Select the Role Playing Problem
2. Conduct Warm-up Activities
3. Explain the General Role Playing Situation
4. Explain the Specific Participant Roles
5. Explain the Audience Roles
6. Allow Time to Prepare Roles
7. Conduct Role Playing Activities
8. Conduct Discussion on Role Playing: Performance and Content
9. Conduct Self-Rating Scales on Process and Content
APPENDIX E

Pro and Con Position Papers
CONPOSITIONS – CAREER EDUCATION

ISSUES

Too Young
1. Many junior high school students may not be interested in careers. Preconceived notions about students' receptiveness to career awareness and career explorations may conflict with their desires, interest, or experiences.

   How do we engage students in career education programs?

   Will the unit infusion concept involve students?

Child Labor
2. Great care must be taken to avoid work/study programs as a back door into child labor.

Career/Academic Cooperation
3. Proponents of career education seem to want to restructure the educational establishment. Where is the effort to elicit the support of the academically oriented educational community?

100% Placement
4. Is the idea of 100% placement realistic? With limited opportunities and with unemployment rates at unacceptable levels many persons will be unable to find suitable work regardless of education or training.

Continuing Education
5. Preparing for future employment is an emphasis of career education.
Yet, it is impossible to develop sound manpower forecasts. Career education must concern itself with providing retraining opportunities.

**Business Cooperation**

6. It will be necessary to test the assumption that business will cooperate in providing opportunities for good work/study programs.

**No School Program**

7. The goals of career education look promising, but there is little evidence of a real school program. The implementation of career education has not had the anticipated impact.

**Minority Opportunities Closed**

8. Will career education really prepare minorities for well-paying jobs, or will it shut the doors of colleges to all but middle class whites, while minorities are trapped for life in service occupations?

**Career Misdirection**

9. There is an implementation gap since the same teachers and counselors who have misdirected minorities in the past will be responsible for implementing career education.

**Protestant Work Ethic**

10. Career education is in part, an attempt to inculcate the Protestant work ethic to produce a work force to meet the needs of industry.
Minority Needs

11. Career education does not penetrate new occupational areas, many with closed shops tightly restricted by union rules. Career education must be monitored so that it serves the needs of blacks and poor, and not just industry.

Alleviate Degrading Programs

12. The majority of students in vocational high schools tend to be poor and non-white. The exception is elite vocational schools which train students for well-paying highly unionized jobs. How will career education alleviate these fragmented programs, often called "special," "tracked," and "slow"?

Ideological Premise

13. What is the ideological premise underlying career education? Is it the concept of corporate social order and the idea that man is achievement oriented? Should business production and technology shape human behavior and values? Do career spokesmen conceal their corporate bias behind a front of "futuristic" predictions?

Laissez-Faire Skills

14. Young persons question the moral validity of learning skills which perpetuate a laissez-faire, expansionist economy.

Utopian Possibilities

15. Students are not permitted to speculate about the possibility that a person's worth is not dependent on being a productive worker who
contributes to an expanding economy. Shouldn't students be able to think on things besides occupation?

Resource Depletion

16. Industrial technological growth is resource-depleting, and results in widespread unemployment, under utilization of talents, and steady depletion of natural resources.

Greatest Failure

17. The single greatest failure of career education would be to put persons into the industrial/technological growth sectors, while underplaying the value of careers in human services.

Achievement Drives

18. Is youth's real needs achievement based? Career education, in many cases, appeals to the acquisitive needs. What about the human needs?

Occupational Relevancy

19. Is occupational relevancy essential? What are the contemporary social realities in America?
PRO POSITIONS - CAREER EDUCATION

ISSUES

Too Young

1. "...teachers encounter any number of nine-year olds who have only the vaguest notion of what their fathers do for a living. It has been a kind of upper-class ideal in this country to put off thinking about a possible occupation until after completion of the baccalaureate degree which by the time they receive it, may well be a surplus item.

"This is not to suggest that the concept of career education should be associated only with high school. Indeed, it is extremely dangerous, as we are finding out, to wait...to begin to acquaint the student with the idea of applying what he has learned..."

Child Labor

2. "The curriculum, if correctly structured, will be a sequence of career development components. One sample model includes: career awareness in the K-6 years, career exploration and experiences including self-evaluation in grades 7-8; grades 9-10 includes (sic) in-depth exploration and training in selected occupational clusters; and grades 11-12 incorporates (sic) intensive preparation in a selected occupational cluster."

Career/Academic Cooperation

3. "Many educators, both in the academic and vocational-technical
communities, are aware of the incongruity between career needs of students and their school curricula."

"Career education would provide the training students require for successful employment and it would give them the education they need to bring personal fulfillment into their lives."

100% Placement

4. The idea of 100% placement is unrealistic. Economists will say that full employment is reached at between three and four percent unemployment. The object is to employ as many persons as possible. Youth with vocational education have unemployment rates equal to the general population.

Continuing Education

5. "The increasing tempo of job obsolescence...demonstrates the urgent need to plan educational programs that enable youth and adults to acquire the types and combinations of capabilities that equip them for entry jobs and also for the frequent retraining necessary for reasonably steady employment during the years in which they must earn incomes."

Business Cooperation

6. "Experience has taught state departments of education that most community leaders are demanding career education. The reception from boards of education and the community has been outstanding."
No School Program

7. The school-based career education model being developed at The Center for Vocational and Technical Education at The Ohio State University seeks to restructure the curriculum to include a career education theme for K-12. There are also three other models being developed.

Youth with vocational education have an unemployment rate equal to the general population compared to about three times as high for youth without vocational education.

Minority Opportunities Closed

8. "Obviously, millions of people are earning good incomes 'without going to college.' But that...does not imply that they...should not have the opportunity..."

"Genuinely effective career vocational education should help open doors...to various levels of post-high school education. It should not close doors."

Career Misdirection

9. "At present much vocational counseling and training results only in placing persons in entry jobs which soon disappear and in retraining for other specific jobs which are also soon outmoded. Both job competence and retraining for specific jobs are essential. But it is also urgent that such training include development of general capabilities that increase worker adaptability and increase worker ability to acquire new and higher levels of competence."
10. "Our society is socially disintegrating, in the minds of many... because... there is an unescapable necessity to recognize the pluralism. The dominate values of the middle class... dominated ethic as well as the mores of our society; and the Protestant ethic, as defined by Weber, was the ultimate ideal and goal of the American school system.

"To keep pluralism from degenerating into the disintegration of society, equal access to the economic opportunities afforded by society must be provided..."

Minority Needs

11. "Career education should aim at providing instruction and counseling that provide youth and adults with the capability, perceptions and attitudes that have been demonstrated to be essential for inevitable retraining and occupational mobility."

Alleviate Degrading Programs

12. "Career education is not designed for any one group of students." The concepts and procedures will work for college prep or for those who don't wish to attend college. "Applied correctly it should reach every child, adolescent or adult enrolled in (an)... educational program."

Ideological Premise

13. "With some reason and justification, the assumption has been that
vocational educators' first obligation is to provide competent employees for local industries. That is a legitimate objective which should be maintained. But current experience demonstrates that that objective above is inadequate to meet the needs of a growing percentage of youth and the total needs of communities."

Laissez-Faire Skills

14. "An increasing proportion of youth are not looking for work...Some of these people have looked for work, could not find it because they had no salable skills and stopped looking. The part of career education that develops salable skills obviously could have helped them. An even more basic problem is developing, however. There is a youth subculture which rejects work, largely because its members do not understand the contributions of work to society and to individual well-being in more than a monetary sense."

Utopian Possibilities

15. "Clearly work and the products of work help make life satisfactory. Such work, in itself, can be psychologically rewarding."

Greatest Failure

16. "One way to build intrinsic motivation is to show ways in which the material learned is relevant to the needs of society. It is possible that young people today are more concerned about service to others than any previous generation in our society. Career education provides a means for demonstrating the social relevance of most school
learnings by showing their relationships to socially relevant careers..."

**Achievement Drives**

17. "In an interdependent technological society, the development of competence to a fair share of commodities and services is a major objective... So is the development of the ability to earn... competence to pursue civilized leisure and to fulfill the general obligations of responsible citizenship are equally important and closely related objectives."

**Occupational Relevancy**

18. "The alienated person does not understand or accept himself in the context of the society of which he is a part... He must be helped to gain self-understanding in relation to the environments of which he is a part..."
APPENDIX F

Role Playing Situation #1
Role Playing Situation #1

The career program introduced into your school has an employability and work adjustment component in it. This means that students are to be assisted in developing traits and skills which would make them more employable and better able to make the initial adjustment to work. You have been asked to help teachers think through what this means for their classroom activities in each subject area.

You have called a meeting of teachers interested in helping you think through what this might mean for curriculum change. At this meeting are teachers who volunteer because they want to be there, teachers who were asked by the principal, and teachers who have other motives not obvious to you.

Roles:

Pro: Teacher A. You have been in the school two years. You like your work, the school and the students. The idea of trying something which would deal with problems of work adjustment and employability appeals to you but you aren't sure how it would fit into math and science.

Con: Teacher B. You have been teaching in this school for five years. It is time for a change. You are tired and currently dealing with some other problems. You have not been able to cope with the idea of career education in your planning and teaching but at this time cannot muster enough energy to fit it.
Pro: Teacher C. You are a leader in the school. You are looked up to by others and recognize this fact. You are not sure how career education and particularly this aspect really fits into education. You are supportive of the effort, however.

Con: Teacher D. You are also a leader in the school and well respected. Your concern is that much more time is being taken away from classes than can be afforded if important skills are to be developed by students. While you are not in disagreement with the career ideas being proposed, you are genuinely concerned about what this might mean for the overall program and would like to see the matter dropped at this time.

Con: Career Coordinator. This is your second year in this position. You have attended workshops and leader seminars to better understand what career education is all about. You know all the teachers in the school and are sensitive to the dynamics of interpersonal relationships. You tend not to want to "rock the boat" and are likely to forego a plan even if it is good rather than pressure teachers into something.

Pro: Principal: You have dropped into the meeting about half way through. You are extremely interested in incorporating career education in all aspects of the program and have pressured your staff into accepting these changes. You genuinely believe in the concepts.
APPENDIX G

Role Playing Situation #2
Role Playing Situation #2

As a part of Career Awareness you have been given the opportunity as a school staff to examine your own careers and the direction they are taking. A seminar on Personal-Professional Development has been offered to your staff with all members expected to attend a series of meetings during which personal and professional development issues are raised.

At this particular session a battery of interest and personality tests have been administered, scored and are being interpreted. These are instruments which describe personality characteristics in a non-threatening way and show interests as they compare with others in various occupations.

At this point in the meeting the topic of one's suitability for his current career has come up.

Roles:

Pro: Teacher A. All indicators would point to interest in another career other than teaching. Yet, you like teaching and are doing a seemingly competent job. You like the idea of looking at your own career.

Con: Teacher B. All indicators would point to lack of interest in teaching areas. No other strong interest appears which seems appealing to you either. You are threatened by what this might mean. You do not feel you are doing a good job in teaching. You are resentful that this kind of discussion would take place.
Pro: Teacher C. You know Teacher B well. You feel that Teacher B should re-examine teaching and look into other careers. You believe career education should also focus on the teachers.

Con: Teacher D. You're here because you have to be. You could care less about the matter.

Pro: Teacher E. Having taught until nearly retirement time it is not of interest to you how to change careers, but how to end this one with dignity. This idea of personal-professional development appeals to you, but you feel it should look at retirement as well as career change.

Con: Teacher F. As leader of this group, having a background in counseling and knowing the instruments used, you would like to have each person be able to express himself and his own unique situation. You have some pressing questions of your own to discuss. However, as leader you do not feel you can use group time to discuss them. They are of a personal nature.
APPENDIX H

Role Abstract Card
ROLE
ABSTRACT

SITUATION ABSTRACT:

SITUATION TITLE: _______________________

CHARACTER: _______________________

POSITION: □  □
CON  PRO

DESCRIPTION OF POSITION:
APPENDIX I

Role Playing Development Format
FORMAT FOR DEVELOPING ROLE PLAYING SITUATIONS
ON CAREER EDUCATION PROGRAM DEVELOPMENT

I. Select dimensions of the situation you wish to include with which institutions will you deal.

- School(s)
- Community
- Business
- Industry
- Labor
- Professional Organizations
- Governmental Institutions
- School System
- Other __________________________

With which part of the program will you deal?

- Staff
- Materials
- Facilities
- Strategies
- Others __________________________

At what stage of development is the program change?

- Introduction: Initial stage of introducing change
- Development: Further development of that which has been introduced
- Reinforcement: Strengthening that which was developed

At what level of integration is the program change?

- Separate Unit: To be added without changing current program
- Guidance Related: To deal with some student change that will require some program change
- Integrated: Integrated into current program, requires extensive change

Whom will you involve?

- Teachers
- Students
- Parents
- Administrators
- Coordinators
Community Personnel

Others ____________________________

What vehicle will you use or include?

---
Calendar
Curriculum change
Skill development
Budget
Others

What problems will be addressed?

---
Skill Development: Personal
Skill Development: Professional
Organizational
Power: Budget, Selection, Evaluation
Others

II. Construct Situation

Use imagination
Build in as many dimensions as possible
Simulate real situations if possible

Example:

The superintendent's office has sent a directive to the principals that each school should begin to hold parent conferences on students' courses of studies. The planning of these courses of studies should include a consideration of career plans. This is the first time such a practice has been required.

The principal and career coordinator are meeting with teachers, subject area chairman and counselors to decide how to build these conferences into the calendar. They must come up with a plan in one month. It must be acceptable to the teachers and they should be able to conduct the conferences expertly.

School A has been conducting field trips for a number of years.
These have been local trips, requiring little funds and of short duration. The trips have been handled primarily by teachers with teachers cooperating.

There is a need to expand the field trip program to other sites at a further distance which will require longer periods of time and considerably more expense and assistance.

A meeting has been called of interested parents, community leaders, teachers, and career coordinator. The agenda includes consideration of obtaining funds, eliciting cooperation from community sites, re-examining purposes of field trips and proposing a way to attack the problem.

III. Describe Roles

Select as many roles as possible and still allow for interaction.

Build in an equal number of negative and positive roles if possible.

Pair off negative and positive roles if possible.

Assign one person to lead off role playing.

Allow ample time for person to develop role before role playing.

Example:

You are a teacher who has been in the system a number of years. Each year a new program is introduced which requires that you change. No one asks your opinion of the programs and you
resent it. At times you have considered applying for another position or advancement but never seem to have the time to put it into operation.

You are a career coordinator who volunteered to help incorporate career education in your school. There are some aspects of the job you like and some you do not. While you like the challenge, you find it difficult to work with your teacher colleagues in any task which requires giving direction.

IV. Share Role Playing Situations for Further Development and Refinement.

Check against possible dimensions that could be built in.
Check against similarity to recall situations.
Check for conflict potential

Where possible interface problems which exist in the schools and community with career education and change.

Establish a consensus about the role playing situation's potential for eliciting good role performance on both positive and negative sides of career education and change.

Anticipate the kinds of questions that might be asked of the audience following the performance of the roles.
APPENDIX J

Self-Rating Scale - Role Playing
ROLE PLAYING
SELF-RATING SCALE: PROCESS

Overall Evaluation

Check One: ____ I liked it very much
____ I liked it fairly well
____ I'm not sure whether I like it or not
____ I didn't like it at all

As Part of the Audience I:

Check One: ____ was actively interested in participating
____ was attentive, watching and listening
____ was fairly inattentive
____ actively resisted participation, was disruptive

As a Role Playing Participant I:

Check One: ____ was out of the role more than in, played the role very inadequately, did not seem to feel the role.
____ was out of the role quite a bit, played the role in a shallow unfeeling way, was mostly unspontaneous
____ was in the role most of the time I was supposed to be, showed some feeling for the role, was not especially creative or spontaneous in bringing out different facets of the role.
____ showed spontaneity, was creative at times, held the role well, was in the role most of the time, was able to play more than one role well.
____ showed real talent and skill in portraying role, easily entered the role and created behavior, demonstrated feelings for the role beyond what was described in the briefing.
For the most part, my statements during role playing were valid. They were statements that can be taken into account in forming intelligent opinion on the topic. They were statements supported by reasoning and evidence.

Comments:

For the most part, my statements during role playing were invalid. These were statements not given detailed consideration either because of lack of evidence or because of errors of reasoning.

Comments:

For the most part, my statements during role playing were consistent with my position on career education (pro or con). A consistent extreme position was maintained throughout the role playing.

Comments:
For the most part, my statements during role playing were inconsistent with my position on career education (pro or con). Many statements did not maintain an extreme position.
APPENDIX K

Videotape Technique
VIDEOTAPING TECHNIQUES

The use of videotaping and the replay of videotapes for observation and discussion has many uses. Educationally, it provides for vicarious learning which can shorten the trial and error periods. It provides for a candid self-analysis. It can be reinforcing of those behaviors or roles which are enhancing. It increases interest in the activity being taped and the content of those activities.

The utilization of video equipment is increased and the flexibility of uses to which it is put increased when each individual is acquainted with the operation of the equipment and can manipulate it to serve his own needs. Instruction in the use of equipment and demonstrated skill in equipment operation is essential.

Ground rules for use of videotapes should be adhered to strictly. These should include the following:

1. Purpose of videotape should be for self-correction and self-rating.
2. All videotapes should be erased after workshop use.
3. No one other than participants should observe tapes unless permission is freely given by those on tape.
4. No reports should be made to other personnel from the tapes.
APPENDIX L

Pro and Con Abstract Papers
INTRODUCTION

This resource booklet is to be used as supportive material related to your chosen posture on career education. You are to maintain a pro or con position in all your encounters in this workshop. This booklet contains many articles supporting your position in order to assist you in structuring your role.

As you continue to identify with your role, you should also critically assess the enclosed career education materials. The first article presents an overview of The Comprehensive Career Education Model and describes its development and implementation. The remaining articles are representative of your role in the teacher education workshop.

The role should be consistent with your position on career education, incorporating as many issues as possible to defend it. The career education materials can be used to validate your posture with the reasoning and research of others.

The content is divided into two sections:

Section I: Overview of Career Education - "Career Education Tenets"

Section II: Contains abstract information. Articles supporting either a pro or con position have been abstracted for quick reference.
"The U. S. Office of Education suggests career education as a systematic way to acquaint students with the world of work during the elementary and junior high years, and to prepare them during their high school and college years to enter and advance in a career field carefully chosen from among many."

"...Kenneth B. Hoyt, professor of education at the University of Maryland and one of the well-known authorities on career education, recently authored "Career Education: What It Is and How To Do It."... Hoyt stated that career education must be seen as representing only a part of the American education. He maintained that career education should be viewed as a concept to be integrated into the total educational system in ways that enhance rather than detract from all other worthy goals. Hoyt stated that career education is going to be a new emphasis in our schools involving the bringing together of many parts, not the building up of one part over another."

"It is essential that career education begin in the elementary school because it enhances a child's self-concept and lays the groundwork for directly identifying with occupations later in high school. A major objective of elementary education in a comprehensive career education program should be to discover the talents and interests of each child and to demonstrate their relation to the work world."
"Career education appears to be much more than one more ephemeral school fad. It is here to stay and the curriculum will be much more relevant because of its inclusion."

PRO

FR. PHI DELTA KAPPAN, FEB., 1973, PP. 384-385
"WE DO NEED ELEMENTARY SCHOOL GUIDANCE, MR. GINZBERG"
BY MICHAEL A. CIAVARELLA

"It is evident that we cannot wait until junior high school to deal with career development, since the process begins long before that. We must begin in elementary school...An elementary school counselor who:
1) knows the world of work; 2) has a keen understanding of children's needs, interests, and abilities; 3) understands the career development process, and 4) has a knowledge of both the human and material resources available to the school can do much to help teachers develop units and experiences which foster, rather than impede, career development in the classrooms."

PRO

FR. PHI DELTA KAPPAN, FEB., 1973, PP. 370-372
"CAREER EDUCATION: THE FIRST STEPS SHOW PROMISE"
BY PETER P. MUIRHEAD

"If a promising approach to education can hover for generations in the back of the classroom waiting to be discovered, career education appears to be it. If, after generations, a nation can recognize virtually overnight that its postindustrial society and the schools serving that society are ready for such an approach, this nation seems to qualify."
Are schools responsible for career guidance and preparation? YES.
Are schools offering programs to do this? NO.

"This is why I think industry, labor, civic and ethnic groups, and most encouragingly, the education community itself, have come out strongly in favor of the career education concept. Career education calls for revitalization of the school and college curriculum so that career awareness and training are an integral part of the instructional process in every school year, from kindergarten through graduate school. Career education is a vehicle that will permit every student to select a career based on his understanding of many available options. It then provides training in the broad career spectrum of the student's choice so that he will have a usable skill whether he drops out of high school, graduates and goes to work immediately, or continues with a higher education program leading to a professional career."

"...Encouraged by support from the chief state school officers, secondary school administrators, guidance and counseling associations, and others with direct responsibility for educational reform, the Office of Education went to work..."

(1) National dialogue

(2) Develop models

(3) Extend existing projects

(4) Develop instructions for K-14

"The national dialogue has been just that—a lively and productive give-and-take among people genuinely interested, concerned about reforming education..."
"...If anything, our successes serve as a stimulus to reform and renewal in other areas of the educational enterprises."

"...I believe these initiatives over the last two years represent every positive first steps, given the limited federal funds available, in launching career education."

"...Looking ahead, I see 1973 as a year of consolidation of career education initiatives within the USOE, close coordination in policy and program development with the National Institute of Education, and a firmer grasp all around of what we hope to accomplish in future years."

"...So I think it is fair to say that career education is no longer just a sound idea that needs to be tried. The first steps have been taken to test its validity in real schools with real students. In many ways they are necessarily tentative steps, because we must feel our way as we go along. That is the nature of any new research and development operation. And whether we succeed or fail, at least with the upcoming generation of young people, will not be fully known until they enter the labor market."

PRO

FR. PHI DELTA KAPPAN, FEB., 1973, Pp. 380
"WILL VOCATIONAL EDUCATION SURVIVE?"
BY CARL E. WELLS

"Vocational education and career counseling are not a threat to academic education. Vocational education will continue to complement the academic-preparatory curriculum in the comprehensive high school. Certainly the skills necessary to run a drill press do not constitute a
complete education. The acquisition of knowledge is the first step toward attitude development and an appreciation of life. As we move toward career education for all, the mutual relationship of pre-academic skills courses will be recognized.”

"The school of tomorrow, with a commitment to career education for all, may look quite different from the typical college prep/general education of today. It will be an extension of the community, extending far beyond the confines of the school building to include business institutions and industries of that community. Meaningful career education is education with a purpose. That purpose is training that fulfills the needs of students, employers, and the community in one exciting adventure."

PRO

MYTHS AND MERITS OF CAREER EDUCATION
BY DR. H. R. CHESHIRE, MR. JOHN L. SCOTT, MR. THOMAS E. WOODALL

"Career education can make a vast difference in the curriculum of this nation's average school system. This relatively new emphasis on our educational process seems to have real merit in terms of student motivation and relevance for instruction. Yet many school systems are slow to accept the basic concepts because of misinformation and lack of expertise on the part of school administrators to implement the components or parts of a career development program...Change or evolution is slow in any establishment, government or business, but changes in education may be regarded as revolution."

"Career education is based on the infusion of career developmental
objectives into comprehensive components for school based programs...The idea is to utilize all aspects of the home, the community and the work environment in making real life meaningful to the student...The student's options will include continuing education in a post-secondary school or college...Successful placement into any entry level job or further education is one of the ultimate goals for every student enrolled in a career education program."

"Complete programs of career education are almost non-existent, therefore, school students may still be buying a pig-in-the-poke, based on wrong information, personal bias or the high pressure tactics of consultants and commercial educational supply firms."

Here are some misconceptions and some practical tips.

"Myth 1. Career education will cost more than the school system can afford."

"Not likely. Existing career education sites in several states have been in operation, in some cases, for as long as four or five years...Components and implementation at the elementary level cost almost nothing. Short-term summer retraining of teachers is the only basic cost. Project materials raise the cost in the middle schools. High schools, to be truly effective, will need the most in terms of visual aid, equipment and related aids...The occupational cluster approach can reduce this cost."

"Myth 2. Career education is really vocational education renamed."

"Not true. Career education is for all students, vocational education is for some students...One error made by some local systems is to upgrade
or hire a vocational instructor to administer career education. The expertise needed for administration is a real grasp of the career education concepts and components interwoven with sound personnel and money management skills."

"Myth 3. Career education is not really new, good teachers have been fusing career guidance and information into their disciplines for years."

"Partially true. Competent instructors, interested in their students' futures have been relating to jobs and life in all their instruction, but this has been uncoordinated for the most part with the rest of the school, the family and the community. Career education strives to expand this creativity to all other teachers, counselors and administrators."

"Myth 4. All of the career education components are too difficult to handle, administer and implement."

"False. Good sound planning by competent administrators will solve most problems. Leadership should be completely committed and trained to develop a realistic management model before implementation. This model should include all components desired the first year."

"Myth 5. Our school board and business community would never agree to accept career education."

"Absolutely not true. Experience has taught state departments of education that most community leaders are demanding career education...Truthful leadership and a complete understanding of career development principles will squelch this myth."

"Myth 6. Career education will demand complete curriculum revision."

"True. If curriculums (sic) are valid they require constant revision,
therefore, career awareness and occupational skills are easy to insert ...
It must become a regular part of each discipline's content and instruction."

"Myth 7. Career education can be incorporated into the existing curriculum by adding or fusing to the existing discipline."

"True. This is a simple approach but most career education leaders feel this is only a partial commitment...The most comprehensive approach is interlocking. This interdisciplinary method involves the uniting of academic, vocational...and artistic areas, and all the rest, for all students..."

"Myth 8. The teaching guides, software and equipment will make career education too expensive for our system."

"False. The best teacher guides, audiovisual aids, student-centered projects and class activities often come from the classroom teachers themselves."

"Myth 9. Career education is for dropouts and the slow learners."

"False. Career education concepts and procedures are just as sound for the college bound...Career education is not designed for any one group of students."

"Myth 10. Moving to career education will cause widespread teacher retraining and recertification."

"False. Four to six weeks of summer training will prepare most teachers for implementation the following school year..."

"Myth 11. New teachers graduating from colleges and universities are prepared to teach with career education competencies."
"False. Very few teacher education programs are incorporating the concepts, procedures and content revisions needed...Many college professors like their counterparts in the public schools have never worked in business or industry, therefore, they find great difficulty in relating to the real world of work."

"Myth 12. Career education should be taught and administered by the guidance counselors."

"No. Again, most lack knowledge of the real working world as it exists today."

"Myth 13. Career education can solve some of society's ills through existing educational processes."

"Maybe. If the schools are prepared to utilize the entire community and the community in turn is honestly committed to working with the school...Career education is attempting to remove much of the educational process from the walls surrounding what we know as school and placing this process within the home, work world and community."

"Myth 14. Career education is just another Hot Item: it will be gone in five years."

"Possible. The U.S. Office of Education has placed a high priority and considerable funds behind this effort...At the present time much of the funds supporting career education come from vocational education and this fact does not represent the across-the-board foundation needed..."

"In summary, the message is...stay loose and move with purpose. Speed can cause misunderstanding and ill will. Examine and establish only those components or parts, which have commitment from the admin-
istration and teachers. Realize success and then move to implement more components. Above all, develop a comprehensive management model, train the instructional staff to be involved and plan for intensive follow-up with time set aside for idea exchange sessions. Demand answers from state department consultants and from teacher educators. Seek realistic funding sources and budget carefully for each component. Finally, plan an effective system to evaluate the progress and success of teacher and students."

"Representative Shirley Chisolm (D-N.Y.), speaking before the National Conference on Career Education: Implications for Minorities" (sic) urged minorities to band together to have an input into the career education program before its implementation rather than to be called in after its implementation to assess the damages."

"Representative Chisolm reminded the audience that historically schools were for Americanizing of the children of European immigrants, not for blacks or Orientals."

"...Sounding a warning bell on career education as envisioned by the Office of Education, she said that career education is designed for middle class children and children of working parents."

"The assumption that career education will be helpful to the very
poor is fallacious, she said. For example, as part of the early education model, students are told to interview their parents to find out about their careers. The Office of Education, she said, envisions students discovering their father holds a respectable middle class job such as being a plumber."

"Such an assignment is irrelevant in many homes where the mother is on welfare, the father unemployed, the sister a street-walker and the brother a junkie. An assignment such as this presents youngsters with an identity crisis, Congresswoman Chisolm said."

"Another career education project recommended by the Office of Education, said Representative Chisolm, is to have students assemble a folder on themselves. Should their police record or poor health record caused by the cycle of poverty be included, she asked?"

"Career education is not geared for the young adults who are pregnant before they are prepared and who have no money to consider future training without increased social services, such as adequate child and health care and mass transportation. If these are not provided, career education will not work for these people, she said."

"Career education is being planned in a vacuum, said the Congresswoman, unless the business and labor sector is also committed to the idea of career education and is wholeheartedly willing to support it. Otherwise, a whole generation of people will be led down a dead end path."

"She also warned that racism and sexism may be built into career education. If businesses and unions restrict membership then career education will go only as far as commencement ceremonies. No amount of
preparation will help students meet rejection because of their heritage."

"In her conclusion, she asked what care is being taken to define career education in terms of future job demands. What kinds of careers can we expect in the year 2000? She suggested areas of future needs would include space technology, cybernetics, and guardians of humanity—those individuals who would insure that people are more than automations. Another possible position would be that of thinker—an individual who would have thinking as a full-time profession, thinking of ways to make and keep society human."

"These jobs plus that of a morality guardian, an individual who sees that those relevant aspects of our moral codes are preserved would insure dignity and opportunity for all, the essence of meaningful career education."

PRO

"TEACHER PREPARATION FOR CAREER EDUCATION IN-SERVICE TRAINING STRATEGIES"
BY H. R. CHESHIRE, THOMAS E. WOODALL, JOHN L. SCOTT

"...The assumption has often been made that a student can acquire certain basic skills in mathematics, reading,...,etc..., and that these skills can be applied to other important areas of his existence. This assumption has been increasingly questioned...One of the major reasons for this gap (between subject matter and the "real world") seems to be that students cannot equate the academic program with the world outside the classroom."

"...Career Education is a vital new approach in education, and has
been advocated by the U.S. Commissioner of Education, Sidney Marland, as a major force to make education relevant in forms of work roles and life as it exists in the 'real world'."

"...Throughout the entire spectrum of Career Education program, school is made more relevant by coordinating vocational and academic subjects...In those school systems where career education has been tried on an experimental basis, in less than a year, the number of dropouts has decreased by one-third. This is dramatic evidence of its effectiveness."

CON

EPIC (NATIONAL URBAN LEAGUE) VOL. 1 #1 SUMMER 1972
"CAREER EDUCATION: A NEW NAME FOR AN OLD GAME"
BY SALLY SPITZER

"Sidney Marland, U. S. Commissioner of Education, has announced a major new thrust for American schools. It is called Career Education and Marland takes pains to point out that it is not just another name for vocational education."

"But is it? Now is the time for the Black Community to ascertain the answer to this question before Career Education is firmly (sic) entrenched within the educational structure...The Office of Education is determined to sell Career Education to the nation."

"Career Education has been described by the USOE as a total revision of the curriculum to introduce all students from kindergarten on to the nature and values of the world of work and to prepare all students for whatever occupation they choose. It is not supposed to be narrow skill-
training or a separate segment of the curriculum."

"...The rationale for Career Education, according to Marland, is that public education should prepare people for jobs, and...many high school graduates and dropouts lack skills necessary for decent employment."

"Black people know this problem all too well. Unemployment among Black teenagers is double that for whites. But, is Career Education the right solution to the problem? Will it really prepare minorities for well-paying jobs? Will schools help them get jobs? More importantly, we must ask the question—will it shut the doors of colleges to all but middle-class whites, while Blacks are fed pell mell into service occupations, trapped for life?"

"There is an additional danger of an 'implementation gap'; the same teachers and counselors who have been misdirecting Blacks in the past will be responsible for implementing Career Education. The nature of Career Education will depend heavily on those educators now teaching in the present system—there have been no indications in the last decade that this patchwork approach to solving the problems of education will change significantly with the advent of Career Education. On the contrary, it may be used as a weapon of oppression against the community of non-whites in this country, trapping them into occupational fiefdom of servitude to a privileged professional class."

"...Career Education is in part an attempt to inculcate the Protestant ethic of work to produce a work force to meet the needs of industry."
"Education should not only prepare people for jobs, but also for survival and community involvement in a prejudiced society. The ability to analyze, criticize and change the repressive aspects of our society are vital educational tools as well."

"Opportunities for penetrating new occupational areas, many with closed shops, should be implicit in the Career Education curriculum and be a way of opening up these unionized enclaves that have traditionally excluded Blacks. Further, the Black community must closely monitor this program to make sure it serves the needs of the Black and poor community, and not just industry's. There must be guarantees that minority students will not be channeled into low-paying service jobs and that their decision not to pursue a B.A. is truly their own. All students must be guaranteed a total education and not merely skills training."

"In large cities, the majority of students in vocational high schools tend to be poor and mostly non-white. The exceptions are the elite vocational schools that train students for well-paying highly unionized jobs. White middle class students dominate the college prep programs. This separatist system can be viewed as the institutionalization of educators' racist attitudes."

"The psychological damage of these attitudes is often critical. Some students begin to believe they are too stupid and stop trying. Others, frustrated and alienated drop out. Many are channeled by guidance counselors into dull, obsolete vocational courses which do not educate them or train them for decent jobs."

"...Career Education, in its present amorphous and yet undefined
form, seems to be gearing up for a continuation of this ignominious tradition. As Black and minority educators, we must guard against the danger of creating another ghetto in our public schools where even now our children are subjected to denigrating labels—'special', 'tracked', 'slow'. The last little acre on this plot of public domain we call education may very well be labeled 'Career Education'."

CON

THE LOS ANGELES TIMES FEB. 27, 1973 PP. 1-A, 2-B, 3-B
"NEW SCHOOL PLAN: TRAIN ALL FOR JOBS"
BY JACK MCCURDY

"A bitter controversy is building in American education--and Los Angeles--over a plan which would require all high school students to prepare for immediate jobs upon graduation, even for those who are headed for college."

"The new focus is on job training and work experience, with less emphasis on academic subjects which traditionally have comprised the junior and senior high schools' curriculum."

"Some call it a sign that America has abandoned hopes of giving all youngsters a chance at a college education."

"Supporters see the move as a long overdue reform that will produce high school graduates who can immediately enter the job market with a 'salable skill', a ready means for making a living."

"our aim is to develop a program where every student, regardless of whether he is going to college must have a salable skill (upon graduation) (according to Los Angeles City School Superintendent..."
William Johnston."

"We are trying to upgrade the world of work by making the salable skill a requirement for every student. We are trying to upgrade career education."

"Such enthusiasm of professional educators suggest career education may go much further than past attempts at school reform."

"Johnston has won substantial support for his plan."

"But not everyone is for it, including some members of the Board of Education, which is expected to act on the proposal in the next several weeks."

"Many serious questions are being raised about the effects of the plan:

"Would academic standards be lowered?"

"Does the district have the present capability to make such vast changes?"

"Would it be an open invitation for low-income students to take fewer academic subjects and, therefore, graduate with even poorer basic skills than they do now?"

"Would the teaching staff be reduced as a result of more students being sent off campuses for work experience?"

"Does business and industry really want young men and women with vocational training or do they simply want graduates with good fundamental skills in reading, writing, speaking and mathematics?"

"Should the schools lean so heavily on the current demands for job training to determine what they teach or should they prepare students
for new jobs in the distant future?"

"Should the elected school board give up so much power to the professional administrator at the local school? Should teachers and parents be involved in the decision making about curriculum at the local level in more than just an advisory capacity?"

"...Phillip Bardos...thinks the financially troubled school system lacks the funds to provide the needed improvements in counseling and retraining of teachers, which Bardos considers essential to make the program work."

"'I have reached the conclusion that if the board passes the proposal without the resources needed,' he said, 'then standards are going to be lowered.'"

"Johnston and his staff insist that standards will not be lowered, that they will be enhanced if anything."

"They envision the creation of courses more attuned to the needs and desires of the students, which would serve to discourage youngsters from dropping out."

"Lack of specifics thus far appears to have produced more doubt among board members than anything else."

"Johnston feels the board should approve his program in principle and broad outline now and consider details later."

"'That,' Bardos said, 'is like asking a corporation to go ahead and do something without having the engineers show how it is to be implemented.'"

"But there is no question that the number of required academic
classes would be cut under the plan."

"...Both these new and old series of courses are aimed at specialization, whether the major field is academic or vocational."

"...All students are included, even those majoring in an academic field intending to enter college."

"...The classes students select will depend on counseling or how they are otherwise advised, which is Bardos' point. It also is a key factor in which classes will even be offered because counseling involves assessing student interest."

"School officials concede that the new plan theoretically leaves a great deal of discretion to students and places a heavy burden on the school in assuring that a youngster takes what he needs."

"Others argue that the tendency will be toward decisions by administrators in the absence of adequate counseling to measure student opinion and make it felt in class scheduling."

"Bardos said that the ratio of counselors to secondary students now ranges between 1 to 800 and 1 to 1,200 in the district."

"'I agree the counseling staff is not adequate," Johnston said, 'but every person in a school is a counselor. Teachers have to advise students. It is done in many schools and I think our schools can handle it.'"

"Board member Robert Docter sees in the plan a move toward what has been ideally called the 'comprehensive high school', a school that exposes all students to the same general curriculum and hopefully offers equal opportunities regardless of family background."
"It has long been a goal of American education."

"But the effect usually has been to channel lower class students into vocational classes and middle class youngsters into academic courses, an inclination usually reinforced by the school."

"Mrs. Mary Perry, chairman of the Verdugo Hills High School Advisory Council, sees the district's plan as 'evidence of society's having given up on its attempt to educate the children of the working classes and the minority groups.'"

"She conceded that 'students may elect to take more (academic classes) than the minimum if enough other students request it.'"

"'But it is a known fact that few but the success-oriented children of the upper middle class will elect to do so.'"

"Mrs. Perry, a Verdugo Hills High Counselor, argues that 'the children of the ghetto, the barrio and the working class white communities will study only that which is required.'"

"Through decades of debate over vocational education, some businessmen and industrialists have demanded that schools train youngsters for immediate entry into stores and factories, equipped with at least a rudimentary knowledge of their pursuit."

"Others have emphasized the paramount need for schools to develop basic proficiency, preferring to train their own employees in the details of sales, manufacturing or commerce."

"With classroom time limited, schools cannot do both adequately. Hence, the divided opinion over where the focus should be."

"People like Mrs. Perry ask the question, 'What kind of salable
skill is there which is not based on reading, writing, and arithmetic?"

"However, Mrs. Joy Picus said the Hughes Junior High School Advisory Council supports the new concept because 'increased flexibility will permit more creative programs.' She was head of a subcommittee which studied the proposal."

"'What is needed in South-Central Los Angeles,' she said, 'is substantially different than that in Woodland Hills. It will be possible to direct the school's curriculum to the needs of a particular group of students.'"

"However, the advisory council also is extremely concerned about the adequacy of counseling under the plan, she added."

"The question of teacher involvement in decisions about curriculum changes has been raised by several teacher groups."

"...The overriding question about the plan remains: who will make the important decisions on what schools teach, professionals or citizens?"

"...In view of this possible shift of power away from public control, Johnston's prediction that his plan 'establishes a new era for education' in Los Angeles takes on a foreboding cast."

CON

PHI DELTA KAPPAN FEB. 1973 PP. 373-377
"CAREER EDUCATION: EARNING A LIVING OR LIVING A LIFE?"
ROBERT J. NASH, RUSSELL M. AGNE

"Obviously there is much that is positive in the career education concept. To provide people with the training to enter and succeed in a career whenever they decide to leave the formal education process is a
humane way to ensure each person a modicum of economic independence and a personal sense of worth. Also, the desire to relate abstract academic experiences to actual field work can only be salutary...Finally, career education has the potential of obliterating forever the myth that only a college degree signifies personal worth; by shifting the emphasis from gaining a career through academic certificate to gaining a career through performance, there is the chance that involuntary attendance at colleges will disappear and that work will begin to take on the important function of helping a young person develop personal meaning."

CON

"...What disturbs us most about the career education movement is the number of key assumptions left unexamined. Nowhere in an exhaustive review of the literature have we discovered a single word of caution or criticism concerning the possible misuses of the career education concept. Nowhere have we found an analysis of the ideological premises underlying career education proposals. Instead, we observe that the literature accepts as an unchallenged good the continued existence of a corporate social order and a concept of human behavior which is achievement-motivated. As a result, much of the planning for educational reform toward a career perspective is a thinly disguised politics. Also, literature on career education conveys a theory of learning which is at least open to question."

"Not once, have we encountered an explicit discussion of the learning theory peculiar to career education, let alone an in-depth analysis
of its possible limitations. And, finally, in spite of frequent references to career education as a program designed to effect 'radical' change, there is practically nothing in the literature that recognizes any weakness in contemporary American schooling other than its poor performance as a feeder of skilled workers into the occupational world. Therefore, because of its excessive claims and the absence of significant self-criticism, we believe that the career education prospectus must undergo careful, constructive examination.

"At the heart of the career education movement is an ideological commitment to a corporate social order...Marland stresses...that because society is becoming increasingly 'organizational' and 'technical', each person will have to learn new skills throughout his life if he is to enter and reenter the different careers which will emerge and disappear in the future."

"...What is disturbing about all this is that American educators are being urged to accept, as an unquestioned social ideal, a type of corporate reality principle emphasizing high productivity; spiraling wages; automation; increasing economic growth; accelerating rates of social change; systematic administration; complex large-scale organizations; and a technical approach to the resolution of human problems... Many career education programs are being constructed without the possibility of students being exposed to alternative social modes... Nowhere in the Pontiac Model, however, is a student allowed to speculate about such 'utopian' possibilities as a society where a person's worth is not dependent on his being a productive worker who contributes through-
A reader searches the career education literature in vain for the slightest sign that its advocates have read any of the social or political critiques of the corporate reality principle--critiques that have been on the upswing in recent years. The critics have shown that corporate life often has a bogus quality that overvalues expertise and performance... They warn that technique and bureaucratic manipulation must never substitute for risk-taking personal expression. Also, some of the more political critics have demonstrated that American schools traditionally have rewarded students who exhibit the characteristics of compliant, passive workers... What these critics emphasize most, however, is that the tracking structure of formal education in the United States tends to reflect the structure of industrial production. Just as students cede control over their activities to career educators, so too are workers stratified within the social system. What results is a worker who can be motivated only by the promise of external awards and status-enhancement."

"Another tendency on the part of some career spokesmen is to conceal their corporate biases beneath a gloss of 'futuristic' prediction... Underlying their injunction to prepare students for the 'new technological realities' is the assumption that corporate systems of business, production, and technology, with their ever-expanding growth potential, will be (ought to be) decisive in shaping human behavior and values and in determining the best possible future of the American culture... The editors have virtually ignored the imminent danger (as a consequence of unfettered
technological growth) that the world's minerals will soon be exhausted and the biosphere enveloped in the pollution."

"Marland assumes that career education is 'a way of combating apathy' because such a perspective teaches 'the skills, the knowledge, and the attitudes necessary for our citizens to adapt to change...so that our society will continue not only to survive but to flourish.' What he overlooked is the burgeoning group of young people who are questioning the moral validity of learning skills which continue to perpetuate a laissez-faire expansionist economy with the GNP as its central index of achievement."

"...Where such an approach is deficient is in its one-sided view of contemporary social reality. Industrial-technological growth is resource-depleting and capital-intensive; such growth is resulting in widespread unemployment, underutilization of people's talents, and the steady deterioration of the world's resources. Meanwhile, there is a dearth of people who have the career skills necessary to resolve the crushing personal and social problems of drug abuse, alcoholism, estrangement, human despair and malaise, and pathological violence. The single greatest failure of education programs would be to push people into the corporate (industrial-technological) growth sector, with its status and financial attractions, while underplaying the value of careers in the human services."

"...Marland...has gently scolded young people who reject 'conventional economic motivations' in favor of 'an avocational interest more attractive to them at the moment.' In spite of his comment that he understands young people's alienation from the achievement ethic of
Western culture, Marland nevertheless considers youth's real needs to be achievement based."

"Much of the program's development in career education is rooted in a belief that people's economic needs are prepotent."

"...What is open to question...is not the attempt to relate academic material to real-life situations, but the obvious effort to fuel the achievement drives of students by appealing directly to their acquisitive needs. Another questionable assumption is one that educators often make: students will respond enthusiastically to subject matter only when it is reduced to occupational relevance."

"...To view human behavior as predominantly achievement driven, and then to develop curricula based on such a belief, is to risk a total misunderstanding of contemporary social realities in America...Even more questionable, however, is the assumption that any young person ought to strive for a career at all. Because of the instability of the economy, careers go in and out of fashion, and an occupation that seems so attractive and permanent in 1972 might be nonexistent in 1978. What is especially unsettling, however, is the inability of so many career educators to understand that the more a person achieves, the greater his need for further achievement. Achievement, like acquisition, is rarely self-limiting..."

"...These are false assumptions and our own generalized suggestions for redirecting present career education programs."

"SPECIALISM. Whenever educators create a perspective of knowledge that is exclusively functional--i.e., ideas are relevant only when they
can be used to promote success in a career--then the educational experience is reduced to a kind of specialized training or programming."

"What is most disconcerting about collapsing the learning experience into such specialized boxes as 'occupational clusters' is that educators sell their souls for a view of life superficially utilitarian. This view is fragmented because students gain insight only into the nature of outer reality; they neglect their inner nature--the intuitive and emotional life dependent for its sustenance on the arts, humanities, and religion. Unfortunately, there is an inexorable logic to specialized education: When persons are locked into one mode of thought or specialty, they become impervious to new ideas or experiences."

"SEQUENTIALISM. Unfortunately, one gets the impression that often the emphasis on levels and progression is self-authenticating. An administrator decides that career education will become the mission of schooling in a local community. Therefore, as an operational convenience, training gets meted out in stages, over specifically planned periods of time."

"...Rigid sequencing, in conjunction with performance objectives, can be a devastating learning block for some students. To train all children in an inflexible age and grade sequence is to risk swamping the special tempo and style of each person's unique rhythm for learning."

"...When career educators can resist the tendency to schedule every moment of a student's time for occupational awareness and technical training, then human beings may be able to frame their own purposes and create their own satisfactions, they may even become more competent,
satisfied workers. First, however, educators will have to free students from the suffocating sequential modes in which they have traditionally been trained."

"FUNDAMENTALISM. The current emphasis on vocabulary, mathematical, and attitudinal competencies in curricular packages is incomplete and shortsighted. It is becoming exceedingly difficult to designate any body of knowledge or behaviors as 'fundamental' for all students, because workers in the world of the future will need a diversity of skills and attitudes—some of which are unknown."

"...To counteract the current preoccupation with marketable skills typical of many career programs, educators will have to consider the value of skills which may be probing, questioning, noninstrumental, and confrontative."

"CREDENTIALISM. Mr. Marland has stated that entrance to the professions...should be based on a person's performance, not on whether he has accumulated formal credentials. While Marland's inclinations are praiseworthy, career educators have yet to show how they can avoid converting a performance-based model of education to one that is exactly the opposite—namely the selection, training, and certifying of workers for the corporate stake. Students will be quick to see that when performance criteria are product-oriented, system-serving, and adult-improvised, then they are indistinguishable from the tyranny of a credential."

"In the future, a performance-based curriculum must include more than functional career training. The most 'useful' learning like play,
is intrinsic, spontaneous and leisurely...Consequently, career educators will have to learn how to designate performance criteria for expressive learning as effectively as they do for 'marketable skill' learning. This type of learning confers superior career advantages on a person because it is evocative and heuristic: A student learns to discover for himself the worth and meaning of an experience, the methods for arriving at and assessing that experience, and the implications an experience has for his private and public worlds."

"...We suggest that, in the future, career educators will have to ask three kinds of questions concerning the purposes of their programs:

1. TO WHAT EXTENT IS CAREER EDUCATION ENHANCING THE PRINCIPLE OF MAXIMUM POSSIBILITIES IN OCCUPATIONS?

Educators must begin to move their curricula away from the unilateral provisioning of skilled careerists for the corporate state and toward the enhancement of human possibilities. Careerists will have to increase personal joy and hope; this will mean preparing persons to live comfortably and enthusiastically with the inevitability of multiple occupations during a lifetime. One approach might be to prepare people to experiment with diversification in their work...The type of career to be avoided will be the one where a credentialled hierarchy imposes restrictions on occupational diversity because it wants to maintain its special privileges.

2. HOW CAN CAREER EDUCATION OBLITERATE THE DISTINCTION BETWEEN WORK AND LEISURE?

Career educators must help each individual find meaning and hope in a profession by pointing out its possibilities for being a sphere of
consequential leisurely activity. This might mean helping people to 
 evaluate a career according to the opportunities it offers for content­
 ment, joy, challenge, and excitement--experiences people ordinarily 
 seek away from work.

3. HOW CAN CAREER EDUCATION BE MORE CONCERNED WITH HUMAN SERVICES?

Educators will have to develop and emphasize innovative, labor­
 intensive 'human service clusters' while minimizing capital-intensive 
 clusters (such as 'marketing and distribution,' and 'construction and 
 manufacturing') grounded in an infinitely expanding technological base. 
 We urgently require persons trained in helping us to improve the quality 
 of our education, health services...air, and water. Likewise, we need 
 people, with the skills to help us expand our appreciation for the 
 artistic, recreational...political, and experimental facets of contemp­
 orary living. Until career educators build programs committed to 
 maximizing each person's fully lived experiences, his sense of personal 
 and professional competence, and his affiliative relationships; and until 
 each person is included as a decision maker in the human service process, 
 then the corporate state will continue to exacerbate the destruction of 
 the earth's nonrestorable commodities and the deterioration of human hope 
 and vitality."
"NIE will continue, said Mrs. (Cory) Rieder, to field all manner of suggestions..."

"And yet Mrs. Rieder and (Thomas) Glennan are exhibiting a number of preferences and biases that researchers should be aware of, and that fly in the face of a number of Marland-Silberman assumptions."

"One is that regional labs should not have all the action. Other institutions, and other disciplines, will have contributions to make, they believe."

"Another is a coolness toward curriculum development. If nothing else, this stems from an awareness that curriculum development and subsequent changes in the nation's schools, are likely to involve enormous amounts of money. It also stems from some of the intellectualizing that is going on at NIE, a frame of thought that is certain to look suspiciously at the assumptions that for decades have formed the underpinning of vocational education and other forms of skill-training.

To appreciate this kind of thing, see the article Education and Economic Equality, by Lester C. Thurow, in the summer issue of The Public Interest. In the article which deeply impressed Glennan, Thurow argues cogently against the wage competition theory, which has held that people come into the labor market with a definite set of skills and then compete against each other on the basis of wages, and in favor of jobs competition theory, v
which holds that people get jobs in relation to their relative position in the labor queue (determined by credentials, social status, race, etc.) and that most skills are transmitted on the job after a worker finds an entry job and a position on a largely predetermined promotional ladder."

"All this provides little good for the kind of school-related model that Ohio State is running. It puts in a better light the employer-based projects, which Mrs. Rieder finds difficult to mount but most interesting. It invites researchers to think of career education in nontraditional terms, and to go heavy on evaluation..."
ESSAY WRITING TECHNIQUE

You are at an integrating point in the Workshop. You have chosen to stay with a pro or con position on Career Education throughout the Workshop. During the next session your task will be to write an essay on Career Education from the same pro or con position. The purpose of this type of writing is to develop expository writing ability. Expository writing ability is the ability to present forcefully, persuasively and originally a position on one side of an issue or another. You will be asked to write on only one side of an issue.

You have been presented with Career Education information. You have developed a role playing situation on Career Education, tailoring it to fit your own subject area and grade level. Your essay incorporates your ideas, pro or con, as they evolved from these experiences, information or activities.

You should incorporate as many arguments as possible into your essay. You should make your arguments differ from each other and should clarify, exemplify and elaborate them. You will have an opportunity to evaluate your own essay using the essay self-evaluation format. All career education materials which have been made available during the Workshop can be used to validate your arguments with the reasoning and research of others. This should be, however, an essay on your pro or con position.
APPENDIX N

Self-Rating Scale - Essay Writing
SELF-RATING SCALE: ESSAY WRITING

Number of arguments used in essay

Fill in grid by rating each of your arguments on the variables listed.

Write in each space on the grid one of the following ratings: VERY GOOD, GOOD, AVERAGE, FAIR, POOR

<table>
<thead>
<tr>
<th>ARGUMENT #</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>VALIDITY</td>
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<td>CLARITY</td>
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<td>USE OF EXAMPLES</td>
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<td>ELABORATION</td>
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<td>FORCEFULNESS</td>
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<td>PERSUASIVENESS</td>
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<td>ORIGINALITY</td>
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APPENDIX O

Item-Test Correlations of Attitude Statements
ITEM-TEST CORRELATIONS OF ATTITUDE
STATEMENTS & DESCRIPTIONS OF SCALES

Table 1

PART I

Acceptance Scale

This attitude subscale is designed to measure teacher acceptance of
principles and concepts of career education. Employment factors and
skill training are included in this section. The items contained within
this factor are rather general and broad in scope and do not call for
personal commitment on the part of a teacher to support the adopting
program.

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement</th>
<th>Item-Test Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Students should be told about different jobs and job requirements during the study of every subject in every grade.</td>
<td>.54</td>
</tr>
<tr>
<td>2.</td>
<td>Every student should have at least one paying job before graduating from high school.</td>
<td>.48</td>
</tr>
<tr>
<td>3.</td>
<td>Visits from industrial chemists would create more interest in a chemistry class.</td>
<td>.47</td>
</tr>
<tr>
<td>4.</td>
<td>Every high school graduate should be guaranteed either further education or immediate employment.</td>
<td>.48</td>
</tr>
<tr>
<td>5.</td>
<td>Elementary school would be better if centered around the world of work.</td>
<td>.61</td>
</tr>
<tr>
<td>Item Number</td>
<td>Statement</td>
<td>Item-Test Correlations</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>6.</td>
<td>An effective program of career education would lower the school dropout rate.</td>
<td>.57</td>
</tr>
<tr>
<td>7.</td>
<td>Students should hold several kinds of jobs before leaving high school.</td>
<td>.53</td>
</tr>
<tr>
<td>8.</td>
<td>Elementary school students should have workmen, such as postmen, garment workers, and electricians, coming to school to talk about their jobs.</td>
<td>.56</td>
</tr>
<tr>
<td>9.</td>
<td>If schools were career-oriented, they would be useful to more students.</td>
<td>.67</td>
</tr>
<tr>
<td>10.</td>
<td>Most local business and professional people would help with a career program in the schools.</td>
<td>.57</td>
</tr>
<tr>
<td>11.</td>
<td>Career education will cost money but will be a saving for society because of an increase in employment.</td>
<td>.67</td>
</tr>
<tr>
<td>12.</td>
<td>Our local community should pay for career education if the State and Federal governments cannot.</td>
<td>.51</td>
</tr>
<tr>
<td>13.</td>
<td>Local residents would be eager to visit schools to talk to students about their jobs.</td>
<td>.57</td>
</tr>
<tr>
<td>14.</td>
<td>Students who are good in history should be told about jobs in this field.</td>
<td>.49</td>
</tr>
<tr>
<td>15.</td>
<td>Career education should be available to all students from Kindergarten through grade 12.</td>
<td>.64</td>
</tr>
</tbody>
</table>
Foreign language teachers should teach about careers in their classes. 

The ways mathematics can be used in jobs can be taught in a few days in every mathematics course.

The quality of education would be raised by an emphasis on jobs and work.

**Table 2**

**PART II**

**Commitment Scale**

This scale deals with teacher involvement. It is more action oriented and commitment seems to be the major theme of this subscale. It emphasizes an integrated program involving all students and consequently a teacher will feel the need to be involved. At the opposite end of the continuum this scale identified the teacher who endorses a separate career education program and who perpetuates a fragmented curriculum.

"Career Education" is another name for vocational education.

Elementary school is too early for a student to start thinking about career possibilities.
<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement</th>
<th>Item-Test Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Career education will be of greater long-term value to boys than to girls.</td>
<td>0.51</td>
</tr>
<tr>
<td>4.</td>
<td>One can easily predict a child's eventual career by looking at his family's ambitions for him and his father's occupation.</td>
<td>0.43</td>
</tr>
<tr>
<td>5.</td>
<td>Students going on to college should not make their career plans while in high school.</td>
<td>0.47</td>
</tr>
<tr>
<td>6.</td>
<td>The school guidance department should carry the primary responsibility for career education.</td>
<td>0.53</td>
</tr>
<tr>
<td>7.</td>
<td>There are areas in the school program more important than career education that need our time, money, and effort.</td>
<td>0.52</td>
</tr>
<tr>
<td>8.</td>
<td>The present high school vocational education courses teach students enough about the world of work.</td>
<td>0.56</td>
</tr>
<tr>
<td>9.</td>
<td>Courses such as art and music would be damaged by including information about job possibilities in those fields.</td>
<td>0.58</td>
</tr>
<tr>
<td>10.</td>
<td>Separate courses on career education would be better than incorporating this subject into existing courses.</td>
<td>0.59</td>
</tr>
<tr>
<td>11.</td>
<td>Career education should be taught by special career education teachers rather than regular teachers.</td>
<td>0.59</td>
</tr>
<tr>
<td>12.</td>
<td>Career education is just another fad that will soon be forgotten.</td>
<td>0.54</td>
</tr>
</tbody>
</table>
PART III
Change Orientation

This attitude subscale differs from the above scale in that it is designed to measure the general change orientation of teachers. Items on this scale deal with individualization of instruction, performance objectives, team teaching and differential staffing. These items do not include employment factors such as occupational, vocational or career education. It is designed to identify potential innovators and teachers who are receptive to change without reference to the "work ethic."

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Statement</th>
<th>Item-Test Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I find that individualized instruction using performance objectives is valuable in helping the student succeed.</td>
<td>.61</td>
</tr>
<tr>
<td>2.</td>
<td>I believe it is more important to work with the entire class than to spend a lot of time with individuals.</td>
<td>.55</td>
</tr>
<tr>
<td>3.</td>
<td>I accept the idea that individualized instruction using performance objectives allows students to experience success more often.</td>
<td>.58</td>
</tr>
<tr>
<td>4.</td>
<td>I regularly use performance objectives with individualized learning experiences to help my students develop to their potential.</td>
<td>.63</td>
</tr>
<tr>
<td>5.</td>
<td>As part of a teaching team, I could spend more time developing creativity, responsibility, and habits of inquiry in students.</td>
<td>.64</td>
</tr>
<tr>
<td>Item Number</td>
<td>Statement</td>
<td>Item-Test Correlations</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>6.</td>
<td>I teach my classes without assistance and discourage others from helping.</td>
<td>.56</td>
</tr>
<tr>
<td>7.</td>
<td>I would greatly dislike being a member of a differentiated teaching team.</td>
<td>.66</td>
</tr>
<tr>
<td>8.</td>
<td>I do not work well enough with others to make differentiated team teaching work.</td>
<td>.60</td>
</tr>
<tr>
<td>9.</td>
<td>I'm convinced that differentiated team teaching is a waste of time.</td>
<td>.64</td>
</tr>
<tr>
<td>10.</td>
<td>I say that differentiated team teaching is asking too much of established teachers.</td>
<td>.58</td>
</tr>
</tbody>
</table>
APPENDIX P

Comprehensive Career Education

Staff Development Questionnaire
COMPREHENSIVE CAREER EDUCATION
STAFF DEVELOPMENT QUESTIONNAIRE

The purpose of this questionnaire is to find out how the educational staff feels about career education in the schools. Your answers will help the in-service coordinators design staff development programs that best represent your needs.

This form should take approximately 15-20 minutes of your time to complete. When completed, please return the form to your in-service leader. Please do not sign your name but you are requested to include your employee number in order to help us to analyze follow-up data.

My Employee Number is__________________________

Directions
Please read each statement carefully and then circle your response.

Each item has a five point response scale as follows:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

Questionnaire
Circle one response for each statement:

1. An effective program of Career Education would lower the school dropout rate.

2. If schools were career-oriented, they would be useful to more students.

3. Most local business and professional people would help with a career program in the schools.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Career education will be of greater long-term value to boys than to girls.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. The quality of education would be raised by an emphasis on jobs and work.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. Elementary school is too early for a student to start thinking about career possibilities.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7. Career education is just another fad that will soon be forgotten.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8. I accept the idea that individualized instruction using performance objectives allows students to experience success more often.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9. I teach my classes without assistance and discourage others from helping.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>10. I do not work well enough with others to make differential team teaching work.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11. The school guidance department should carry the primary responsibility for career education.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>12. The present high school vocational education courses teach students enough about the world of work.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>13. Career education will cost money but will be a saving for society because of an increase in employment.</td>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
14. Career education should be available to students from Kindergarten through grade 12.  

15. I'm convinced that differentiated team teaching is a waste of time.  

16. Elementary school would be better if centered around the world of work.  

17. As part of a teaching team, I could spend more time developing creativity, responsibility, and habits of inquiry in students.  

18. Courses such as art and music would be damaged by including information about job possibilities in those fields.  

19. Students going on to college should not make their career plans while in high school.  

20. Local residents would be eager to visit schools to talk to students about their jobs.  

21. Career education should be taught by special career education teachers rather than by regular teachers.  

22. I find that individualized instruction using performance objectives is valuable in helping the student succeed.  

23. I believe it is more important to work with the entire class than to spend a lot of time with individuals.
24. There are areas in the school program more important than career education that need our time, money and effort.

25. Elementary school students should have workmen, such as postmen, garment workers, and electricians, coming to school to talk about their jobs.

26. Foreign language teachers should teach about careers in their classes.

27. I regularly use performance objectives with individualized learning experiences to help my students develop to their potential.

28. I would greatly dislike being a member of a differentiated teaching team.

29. Separate courses on career education would be better than incorporating this subject into existing courses.

30. I say that differentiated team teaching is asking too much of established teachers.

31. Students should hold several kinds of jobs before leaving high school.

32. Students who are good in history should be told about jobs in this field.

33. Visits from industrial chemists would create more interest in chemistry class.
34. The ways mathematics can be used in jobs can be taught in a few days in every mathematics course.

35. One can easily predict a child's eventual career by looking at his family's ambitions for him and his father's occupation.

36. Students should be told about different jobs and job requirements during the study of every subject in every grade.

37. Every student should have at least one paying job before graduating from high school.

38. "Career Education" is another name for vocational education.

39. Every high school graduate should be guaranteed either further education or immediate employment.

40. Our local community should pay for career education if the State and Federal governments cannot.
APPENDIX Q

Categorizing Attitude Items
MEMORANDUM

DATE: February 26, 1973

TO: CCEM Staff

FROM: Kaare Jacobsen

SUBJECT: Categorizing Attitude Items of a Career Education Questionnaire

You are requested to categorize ten items that represent a staff development attitude measure. The two categories are designed to measure a respondent's "acceptance" of principles and concepts of career education and "commitment" to involvement in the implementing program. You are to qualify each of the ten statements as either an "acceptance" item or a "commitment" item.

Rationale

The distinction between the two categories is based on the following definitions of the terms acceptance and commitment.

Acceptance: To endure and/or tolerate with patience, or to regard as proper, suitable and normal. Example: universal education is acknowledged or recognized as appropriate, permissible and inevitable.

Commitment: The act of doing or performing something, the obligation or pledge to carry out or give support to some action or policy. Example: Democracy is a moral choice that involves a person in a definite course of action.

It is possible for a person to be accepting of a particular idea or a group of people without being personally involved. A teacher may accept the principles and concepts of career education but does not feel any commitment to support the adopting program. Conceivably, a teacher could score high on an acceptance scale and nevertheless endorse a separate career education program that perpetuates a fragmented curriculum.

Please refer to the statements on the next page and categorize each statement as to whether you feel a teacher could respond favorably to an item and still not become personally involved in the implementation of career education. (Such an item would be an acceptance item.) If you feel the statement calls for a teacher's personal involvement, i.e., by virtue of an integrated curriculum or a program designed for all students, such an item would be a commitment item.
**Instructions:** In the following statements, place an "A" if the item is of an "acceptance" nature. Place a "C" next to the items that are representative of a "commitment" position on the part of the respondent.

<table>
<thead>
<tr>
<th>Items</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Career education should have equal long-term value for both boys and girls.</td>
<td></td>
</tr>
<tr>
<td>2. If schools were career-oriented, they would be useful to more students.</td>
<td></td>
</tr>
<tr>
<td>3. The quality of education would be raised by an emphasis on job and work.</td>
<td></td>
</tr>
<tr>
<td>4. An important priority of education should be the interrelatedness of all subject matter with career education.</td>
<td></td>
</tr>
<tr>
<td>5. Career education will cost money but will be a savings for society because of an increase in employment.</td>
<td></td>
</tr>
<tr>
<td>6. It is the responsibility of all teachers to be involved with the implementation of career education.</td>
<td></td>
</tr>
<tr>
<td>7. Students going on to college should make their career plans while in high school.</td>
<td></td>
</tr>
<tr>
<td>8. There are no areas in the school program more important than career education that need our time, money, and effort.</td>
<td></td>
</tr>
<tr>
<td>9. Career education should be available to students from kindergarten through grade twelve.</td>
<td></td>
</tr>
<tr>
<td>10. Every student should have at least one paying job before graduating from high school.</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX R

Subscale and Questionnaire Relations
<table>
<thead>
<tr>
<th>PART I ACCEPTANCE SCALE ITEM NUMBERS</th>
<th>PART II COMMITMENT SCALE ITEM NUMBERS</th>
<th>PART III CHANGE ORIENTATION ITEM NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4a</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>6a</td>
<td>9a</td>
</tr>
<tr>
<td>3</td>
<td>7a</td>
<td>10a</td>
</tr>
<tr>
<td>5</td>
<td>11a</td>
<td>15a</td>
</tr>
<tr>
<td>13</td>
<td>12a</td>
<td>17</td>
</tr>
<tr>
<td>14</td>
<td>18a</td>
<td>22</td>
</tr>
<tr>
<td>16</td>
<td>19a</td>
<td>23a</td>
</tr>
<tr>
<td>20</td>
<td>21a</td>
<td>27</td>
</tr>
<tr>
<td>25</td>
<td>24a</td>
<td>28a</td>
</tr>
<tr>
<td>26</td>
<td>29a</td>
<td>30a</td>
</tr>
<tr>
<td>31</td>
<td>35a</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>38a</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td></td>
<td><strong>Total 40 Questions</strong></td>
</tr>
<tr>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* = reverse scoring weights of these items
APPENDIX S

Comprehensive Career Education Staff Development

Questionnaire With Optimum Scoring
The purpose of this questionnaire is to find out how the educational staff feels about career education in the schools. Your answers will help the in-service coordinators design staff development programs that best represent your needs.

This form should take approximately 15-20 minutes of your time to complete. When completed, please return the form to your in-service leader. Please do not sign your name but you are requested to include your employee number in order to help us to analyze follow-up data.

My Employee Number is____________________

Directions

Please read each statement carefully and then circle your response. Each item has a five point response scale as follows:

<table>
<thead>
<tr>
<th>Strongly Agree (S.A.)</th>
<th>Strongly Disagree (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

Questionnaire

Circle one response for each statement:

1. An effective program of career education would lower the school dropout rate.
   - S.A. 5 4 3 2 1

2. If schools were career-oriented, they would be useful to more students.
   - S.A. 5 4 3 2 1

3. Most local business and professional people would help with a career program in the schools.
   - S.A. 5 4 3 2 1

* 4. Career education will be of greater long term value to boys than to girls.
   - S.A. 5 4 3 2 1

5. The quality of education would be raised by an emphasis on jobs and work.
   - S.A. 5 4 3 2 1

* 6. Elementary school is too early for a student to start thinking about career possibilities.
   - S.A. 5 4 3 2 1

* 7. Career education is just another fad that will soon be forgotten.
   - S.A. 5 4 3 2 1
8. I accept the idea that individualized instruction using performance objectives allows students to experience success more often.  

* 9. I teach my classes without assistance and discourage others from helping.  

* 10. I do not work well enough with others to make differentiated team teaching work.  

* 11. The school guidance department should carry the primary responsibility for career education.  

* 12. The present high school vocational education courses teach students enough about the world of work.  

13. Career education will cost money but will be a saving for society because of an increase in employment.  

14. Career education should be available to students from kindergarten through grade 12.  

* 15. I'm convinced that differentiated team teaching is a waste of time.  

16. Elementary school would be better if centered around the world of work.  

17. As part of a teaching team, I could spend more time developing creativity, responsibility, and habits of inquiry in students.  

* 18. Courses such as art and music would be damaged by including information about job possibilities in those fields.  

* 19. Students going on to college should not make their career plans while in high school.  

20. Local residents would be eager to visit schools to talk to students about their jobs.
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* 38. "Career Education" is another name for vocational education.

39. Every high school graduate should be guaranteed either further education or immediate employment.

40. Our local community should pay for career education if the state and federal governments cannot.

* REVERSE SCORING WEIGHTS ON THESE ITEMS


Weber, W. E. "Obstacles to be Overcome in a Program of Teacher Education In-service," *Educational Administration and Supervision,* Vol. 28, November 1962.