The Development of Attitudes Toward Work Through "Career Education"

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Title: The Development of Attitudes Toward Work Through "Career Education"

Attitude measurement problems are discussed within the context of a contemporary movement in the field of education. A restricted definition of the alienation construct is suggested as a theoretical framework within which research in this area could be conducted. Construction and validation data on an instrument designed to measure attitudes toward work are reported. Pre and posttest scores (using the above measure as well as the Rotter I-E Scale) of two high school Career Education programs were
compared. Neither program produced significant mean attitude change in terms of these measures. However, change detected by increase in the variance on the I-E measure was significant in one program. Also, correlational data between the attitude scores and scores on two different course achievement tests indicate that the attitude and achievement variables are associated. A model for research connected with the implementation of future innovative Career Education programs is suggested.
THE DEVELOPMENT OF ATTITUDES TOWARD WORK
THROUGH "CAREER EDUCATION"

by

LONNIE FRED McDONOUGH WHEELER

A thesis submitted in partial fulfillment of the requirements for the degree of

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TO THE OFFICE OF GRADUATE STUDIES AND RESEARCH:

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July 28, 1975
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CHAPTER I

INTRODUCTION

The term "Career Education" identifies one of the most significant movements in contemporary education. Although there is no general agreement at the present time concerning all that is to be included in a definition of that term, some insight into the nature of the movement may be obtained by considering relevant comments that are being made by those who are exercising considerable influence on the movement.

As outlined by a recent U.S. Commissioner of Education (Marland, 1973), the basic goal of Career Education is to blend academic and occupational programs in such a way that the assumed distinctions between those programs will be removed and all learners will thereby be better served in their search for productive careers and rewarding lives. Others (Hoyt, Evans, Mackin, & Mangum, 1972) explain the movement as an attempt of the educational system to socialize people in terms of a strong work ethic. Dale Parnell (1973), a past Superintendent of Public Instruction in Oregon, discusses Career Education as "survival insurance." He uses that metaphor to emphasize the need for schooling which will help students to perform successfully in their various "life careers," which are explained by him as a set of roles in which the role of producer, or worker, plays a central part.
The movement of Career Education, then, as identified by influential persons such as those cited above, has as one of its major themes the training of people for work in our society. Hoyt et al. (1972) enunciate this theme clearly in the claim that "if the school prepares people for life, it must prepare them for work and for some type of work ethic" (p. 14).

The notion of training people in terms of a "work ethic" implies that certain values concerning work, or attitudes toward work, are being internalized by those who are being trained. It is with respect to this matter that Career Education becomes important insofar as the discussion in this paper is concerned. What is the nature of these values or attitudes? What do they look like empirically? How are we to assess whether or not specific Career Education programs are effective in terms of attitudinal results? Questions such as these have prompted the work that is to be reported in this paper. That work includes the development of an instrument designed to measure attitudes toward work, as well as an exploratory study related to assessment of a specific Career Education program in the Oregon public school system.

Before these reports can be appreciated fully, however, there is a need to explore in some detail some of the issues surrounding the problems of "attitudes toward work" as well as a need to clarify the way in which Career Education came to be seen as part of a solution to those problems.
CHAPTER II

ATTITUDES OF ALIENATED WORKERS

Work is a "given" aspect of human existence. Indeed, it seems obvious that, for humanity taken as a whole, without work there shall be no existence. But a variety of meanings have been attached to man's relationship to work historically (Mills, 1973, pp. 6-13), and the meanings which people attach to their work, their attitudes toward work, are an important facet of human experience. Much of the current concern over what has been termed "widespread youth alienation with the world of work" (Best, 1973, p. 45) can be viewed as an indicator of the importance which our society places on attitudes toward work.

Worker alienation is a pervasive issue in our society. The issue turns up again and again in literature written for various interest groups and at various social levels. Books written primarily for popular consumption (e.g., Terkel, 1973), for students of management (e.g., Drucker, 1974), for students of sociology (e.g., Blauner, 1964), or for students of psychology (e.g., Schein, 1970) all speak to the issue in a substantial way. Although each of these writers vary in the emphasis given to the subject, they all identify it as an important social-psychological problem of our society. Interest in the subject can also be identified by such indicators as the recent proposals to the
Congress of bills dealing with the problem of worker alienation, and by the increase in the U.S. Department of Labor "research on workers' problems that lie outside of established labor standards" (Quinn, Manigone, & Baldi de Mandilovitch, 1973).

Our social system is not alone in identifying worker alienation as a significant problem. Adam Schaff (1970), a faculty member of the University of Warsaw, writing from a Marxist perspective, admits that "in all socialist societies that have so far existed, various forms of alienation have appeared" (p. 128). He then goes on to discuss this problem as one of the defining characteristics of any industrial society. Admissions such as this give even more importance to the alienation issue inasmuch as communication between societies in conflict with each other may become possible due to the recognition of problems that are common to both.

The pervasive nature and the importance of the problems associated with the notion of worker alienation cannot be seriously doubted. But how the notion fits into the study of psychology and what psychological aspects of the alienation construct are amenable to empirical research may be another matter altogether.

Just what is "alienation?" As with the term "Career Education," no general agreement is to be found concerning the boundaries of this concept, and yet, volumes of literature concerned with this construct continue to be written.

The major problem with the alienation construct is that one
is hard pressed to tie down any concrete set of phenomena with which to associate the term. Novelists, philosophers, newswriters, and social scientists have, by their use of the term over the past twenty years, popularized it, but without clearly identifying what they mean when they use it. This has led to gross confusion of the notion (Kaufmann, 1970). At this time, the alienation is from nature; at that time, it is from other people or society in general; at another time, it is from work or a job; and at still another time, the alienation is being experienced with respect to the self.

Even when reviewing the way the term has been used in a single field, social psychology, Richard Schacht (1970, pp. 156-165) found it being used in at least the following diverse ways: as loneliness; as a lack of social solidarity; as dissatisfaction in social relations; as job dissatisfaction; as lack of control, meaning, and self-expression in work; as powerlessness; as distrust and apathy; and as purposelessness. Schacht points out that many social scientists are assuming that there is one underlying dimension of alienation and that it is expressed in a variety of ways; however, that assumption has not been verified empirically.

After rejecting the usefulness of the construct as a "multidimensional" concept, Schacht (pp. 174-196) suggests that the term, without considerable restriction, is only capable of operating as a "general, non-theoretical classificatory term, analogous to 'separation'" (p. 175). But he does concede that,
if the term were to be restricted, if it were to be successfully operationalized, in terms of an attitude scale, it could become a useful social scientific concept.

Donald Hodges (1973) would like to see the term restricted to the man-work-complex organization relationship (the Marxian context of usage); and then, according to Hodges, the construct could be of lasting importance to the labor movement.

Some writers (Blauner, 1964; Etzioni, 1961, 1969; Schaff, 1970; & Schein, 1970) have restricted their use of the alienation construct to man-work relationships within the context of complex formal organizations, and the remaining discussion in this paper will follow the thinking of these writers. Alienation, then, is to be understood as an environmental condition within the context of a formal organization in which the worker experiences his labor as a compulsion, and not as a means of satisfying a psychological need to work. His labor is seen by him primarily as a means of meeting other necessities, and the act of labor itself is essentially meaningless. In this condition, there is a low level of commitment of the worker to his work organization, to his immediate work group, and to his work itself. Production and work, as used here, are not limited to situations in which the producer receives money for his work.

The attitude of individuals toward this kind of situation is a part of the overall definition of the situation, and, as such, is a psychological variable which should be measurable. This attitude of the individual may also be seen as one of the
results of the "psychological contract" that exists between an individual and the organization in which he produces. It does not develop exclusively with factory workers, or any other select group, but can be viewed as a variable in all individual-complex organization interaction, including students in educational settings (Schein, 1970, pp. 11-20 and 50-55).

The notion of worker alienation, as discussed above, then, includes an attitude which individuals hold with respect to the organization itself, with respect to their social relationships within the organization, and with respect to their own work activity within the organization.

This attitude is only one of many factors operating in organizations which affect the complex man-work-work organization relationships. Certainly there are other factors, possibly more important factors, that operate within work-world networks. Some of these other factors, such as supervisory leadership styles (Vroom and Mann, 1960), the challenge of the job itself (Argyris, 1964), differential meanings attributed to pay (Gellerman, 1963), and the motivator and hygenic factors identified by Hertzberg (1959), have been given a great deal of attention by researchers in the past, and have added to our understanding of the complexity of the relationships that obtain between people and organizations. Even in light of this type of past research, however, the nature of the interaction between the alienated worker, as described above, and the work organization still remains unclear.

Schein (1970) points to one major aspect of the problem
by saying:

It has been difficult to determine . . . whether an alienated worker was a person without achievement and self-actualization needs when he first joined an organization, or whether he became that way as a result of chronically frustrating work experiences (p. 73).

At best, then, the causal relationships between attitudes and organizational experiences of alienated workers is very cloudy. But Schein's question raises two other questions that have to do with the same problem and that are of interest to the present discussion. The first question is whether our educational system produces people who already have attitudes of alienation when they leave the system and enter the job market. The second question is whether, if that in fact is the case, the Career Education movement is capable of providing a remedy for that problem.

Walter Kaufmann (1970) has introduced the notion that some forms of alienation are a function of unrealistic education:

More and more people get more and more education, are exposed to literature and art and music, develop some sensitivity along with the desire to become artists, writers, or creators of some sort -- and find that the careers actually awaiting them are disappointingly dull. . . . Moreover, our educational system not only exposes pupils to great art and poetry and fiction; it also encourages them to believe that they can paint and write as well as anyone. It not only acquaints them after a fashion with some of the most original scientists; it also leads them to think that there is no reason why they should not make comparable discoveries. One does not only study Presidents of the past; one is also taught that every American boy -- and perhaps, every American girl -- can become President. But such wild expectations are doomed to be disappointed in most cases (pp. xlv, xlvii).

He then suggests that the forms of alienation that are created by
experiences such as those described above "could be prevented by changing our educational system; by not stimulating utterly unrealistic hopes; by preparing students for jobs that actually await them" (p. xlvi). Career Education could become the influence that changes the educational system in the way that Kaufmann suggests is necessary. Certainly, that is one of the objectives of the movement. As one report of the National Advisory Council on Vocational Education (1971) proclaims: "it is a national objective that states abolish 'general' education and redirect those resources to prepare students for a job entry skill in a career pattern" (p. 7). But whether or not that objective will be reached, or is even desirable, remains to be seen.
CHAPTER III
CAREER EDUCATION

In the Introduction, it was suggested that the term Career Education is ambiguous inasmuch as no general agreement exists concerning how much is to be included in the term. However, most of those who are heavily involved in the movement would agree that the broad features contained in the Career Education model that has been suggested by the United States Office of Education (USOE) should be included in the definition. In the USOE model, Career Education is seen as a comprehensive curriculum, running from the first grade through the adult years, and centering on the occupational life. Hansen and Borow (1973) summarize that model in this way:

In grades 1 through 12, the sequentially developed USOE model includes structuring of basic subjects around the theme of career opportunities and requirements in the work world. In elementary school, students learn about the wide range of jobs available and their functions and requirements. In junior high school, students examine specific clusters of occupations through "hands on" experiences, field observation, and classroom instruction. They also receive assistance in selecting an occupational area for further study in senior high school. In the upper secondary years they pursue their selected occupational area and subsequently choose one of three options: (a) intensive preparation for immediate job entry upon leaving high school; (b) preparation for postsecondary vocational education; or (c) preparation for four-year college. The plan allows every student to leave the system with at least entry level job skills and with basic background in academic subjects to go on for further education if desired. Focus is not only on job information and skill development but on attitudes about
the economic, personal, and social meanings of work. Counseling and guidance are provided to assist the student in self-exploration and in the development of self-awareness, and placement into an entry-level job or further education is assured every student. Key words are orientation, exploration, preparation, and placement for all (pp. 196, 197).

Notice particularly from this description that "focus is not only on job information and skill development but on attitudes about the economic, personal, and social meanings of work." Career education is not just an attempt to "beef up" a weak vocational education program, but it is a national policy directed toward the development of a work ethic.

Hoyt et al. (1972) identify the problem in this way: "the industrial work ethic is eroding, and a postindustrial work ethic has yet to develop" (p. 40). The solution that must be developed by philosophers and taught by teachers, they suggest, is a work ethic that includes at least the following four basic ingredients: the value of volunteer work, the dignity of all work, satisfaction through service to others, and belief in multiple careers as a necessity. Above all, they claim, "it will emphasize that we are what we achieve" (p. 40). But they are careful to remind their readers that the new work ethic must include the traditional value of productivity. They point out that it is "indefensible to fail to teach youth that employers do value the traditional work ethic and that major violations of it will lead to discharge" (p. 40). They also acknowledge the fact that national strength, as well as individual income continues to be based on productivity. From their point of view, "it remains true that, economically speaking,
'there ain't no free lunch'" (p. 14).

Philosophically, then, Career Education can be conceived of as a movement with the capability of uniting, at least insofar as the educational system is concerned, two views of work that are dominant in our culture: the humanistic view which sees work as an intrinsic need to be met, and an instrumental view which sees work primarily as a means to other ends. If this were to actually occur, it could have far reaching effects in our society -- inasmuch as the output of the educational system affects the business/industrial complex. Viewed positively, a highly productive, humanistically oriented work environment could develop.

As desirable as that result might be, an outcome of that nature seems unlikely, given the actual origins and development of the movement. The policy makers and implementors of Career Education have not necessarily understood the movement in this light. As will be shown shortly, those who exerted the initial influence on the Career Education policy certainly did not see it that way. And historically, policy makers have probably determined more outcomes than philosophers.

I. CRITIQUE OF POLICY ASSUMPTIONS

Opinions regarding the general ineffectiveness and lack of worthwhile content in American schooling are not new. However, a new slant on the condemnation of the system developed during the latter part of the 1960's. During that time, critics of the
system began to stress the idea that inadequate education was at the root of our massive and pressing social problems. The first paragraphs from the First Annual Report of the National Advisory Council on Vocational Education (NACVE) need to be quoted here; not only because those paragraphs contain the suggestion that the educational system was responsible for the alarming domestic social problems of that time, but also because the analysis of the situation developed by that council seems to contain the basic assumptions on which the Career Education policy rests.

The violence that wracks our cities has its roots in unemployment and unequal opportunity. Those who have no jobs in an affluent community lash out in anger and frustration. Young men and women who cannot qualify for decent jobs distrust the society which reared them. Dissidents speak with the voice of rebellion; campus and inner-city revolt reaches into our schools. Our Nation seethes.

Racial unrest, violence and the unemployment of youth have their roots in inadequate education. Each year the ranks of the school drop-outs increase by three-quarters of a million young men and women. They enter the job market without the skills and attitudes employers require. They and the millions of others who are underemployed -- among these the students who are graduates of our high schools but are inadequately prepared for anything -- are tragic evidence of the present inadequacy of our educational system.

The costs, the blighted lives, the discontent, the violence, and the threat of revolution, are needless. Schools can prepare young people to realize their potential (NACVE, 1969, p. 1).

The time of this report should be kept in mind (July, 1969). This was the latter part of a three or four year period of time when it seemed to many that the entire social structure of American society was crumbling along with the walls of the burning buildings in the cities. For persons acting in
governmental advisory capacities, as well as for others, this was probably not a time for relaxed and careful appraisal of the situation. It was a time for alarm, a time of near panic. Something needed to be done. And someone or something needed to be blamed. I suggest that it was the emotional intensity of this societal situation which allowed the notion of "education for employment" to gain a hearing at a national level and to then be adopted as a national policy. It is difficult to imagine any other kind of situation in which vocational educators, who have traditionally held such low status in the educational community, would have been likely to have come to the fore.

The Council which developed this definition of the educational situation had been brought into being by the Congress through the Vocational Education Amendments of 1968. The Council was to advise the Commissioner of Education with regard to vocational educational programs. Acting in this capacity, this Council was apparently instrumental in encouraging the Commissioner of Education to take a strong stance with regard to a policy position which has since come to be identified by the name of Career Education.

Extracted from the report that has been quoted, the Council's analysis of the problem boils down to the following essential ingredients:

(a) We have an inadequate educational system.
(b) This results in the inadequate education of the youth.
(c) This leads to unemployment and unequal opportunity for
many of them.

(d) This leads to frustration and anger.

(e) This leads to manifest social unrest and violence.

The above propositions defined the situation. The solution to the problem as defined was to be found in a reform of the educational system. According to NACVE, this reform would have to involve (a) changing attitudes toward vocational education, (b) changing the school program, and (c) initial Federal financing. As this reform would be carried out, there would be a dramatic reduction of the financial, personal, and social costs which had been generated by the old, inadequate system (NACVE, 1969, pp. 1-4).

A number of assumptions were made by the Council in their analysis and suggested resolution of the problem, but some seem to be particularly important. Among those that are important are:

(a) The belief that the socio-economic system is essentially healthy and benevolent.

(b) The belief that opportunities will be available in the system for all of those who are trained and that these opportunities will be genuine career opportunities.

(c) The belief that preparation for realization of potential can be defined in terms of preparation for employment.

(d) The belief that the socio-economic system will provide assistance toward individual self-fulfillment.

These assumptions relate principally to the nature of our socio-economic system and to the possibility of self-fulfillment within
it. To say the least, these assumptions are questionable.

Neither in this report, nor in any later reports of this Council, nor in any other Career Education literature that was reviewed in preparation for this discussion, have I been able to find any material addressed directly to the issue of whether or not the structure of our socio-economic system is capable of handling the possible results of Career Education. Suppose, for instance, that the local programs were to be extremely successful, and that all of the students (excluding the college bound) that emerge from the secondary system had some "saleable skill."

There is no guarantee that each could be fitted into the existing economic structure with any genuine sense of the beginnings of a "career."

Very little effort is expended in Career Education discussions on the issues revolving around the creation of jobs from the perspective of those who have the power to create them. Most of the talk has to do with developing a person with a "saleable skill" and assuming that the market will automatically absorb that person in a humane way. And yet, prior history does not indicate that this is the way that things really work. The "market" is, and always has been, a tumultuous affair, filled with chance. It is doubtful if anyone has ever understood how it really works. With this in mind, to prepare a person with skills that "seem" to be needed and then to assume that the market will welcome him with open and humane arms, is naive to say the least, and upon careful reflection, seems almost quixotic.
in Career Education. To suppose, as this Vocational Advisory Council did, that providing young people with skills and attitudes required by employers is the same as preparing them to realize their potential seems one-sided and almost simple-minded. For most jobs, employers require attitudes of submission and skills in technology. Suppose a person learns the attitudes of submissiveness and the necessary technical skills for employment: Does preparation in this sense speak to the person's essentially human needs? Hopefully, a worker with this suggested training could provide himself with some hours of leisure. But, for what? Did his training teach him to think? Or is he to spend his leisure time involved in activities that require the same mindlessness that most jobs require? And what about his time on the job? Even if the person is so fortunate as to have a job that requires him to think, the thinking that is required is usually of a mechanistic, robot-like nature, and doesn't demand that he address himself to the issues that historically have spoken of humanness. It wouldn't make any difference anyway -- given only the suggested training. He would not have been trained to concern himself with, and think carefully about, the traditional major issues of human existence.

In my judgment, education geared to providing students with "skills and attitudes required by employers" can do only that; it cannot help students to face the harsh realities of our economic system, nor is it likely to salve the sores of our social sickness, as was suggested by NACVE. If appropriate changes were
to be made in parts of the socio-economic structure other than in the educational system, the problem of the "humanization of work" might be solved. Changes in the educational system alone, however, are not likely to produce the solution. Career Education, by itself, will not result in the humanization of work.

However, whether or not the Career Education movement becomes a part of the solution to the dual problems of continued high productivity and the humanization of work, it is still a national policy, and as such, is being implemented. Consideration of developments in one state will provide an illustration of that fact.

II. THE OREGON WAY

Oregon is one of the leading states in the movement and has developed a long-range plan to implement Career Education as a major part of the curriculum of its primary and secondary schools. This long-range plan is known as "The Oregon Way," and is patterned after the USOE model that was described earlier. As a part of this plan, new graduation requirements for high school students have been written into law. These new requirements will take effect in 1978. One of the new requirements for graduation will be a unit of credit in Career Education. These new requirements are spelled out in the Administrative Guidelines of the Oregon State Department of Education (OSDE) published in 1973.

In addition to the new graduation requirements, the State
Board of Education is requiring that local educators spell out their curriculum in behavioral terms. The performance indicators are to be categorized under three main headings: Personal Development, Social Responsibility, and Career Development. From this categorization, it can be seen that Career Education is to be heavily emphasized in the State of Oregon.

According to Administrative Rule 22-105, the term Career Education is defined as "planned instruction aimed at helping students develop general occupational competencies needed to function effectively within a career cluster or a broad range of occupations" (part 5). Acceptable job attitudes are included in these "competencies" that are to be developed. A major emphasis is to be placed on the development of these job attitudes at the 11th and 12th grade levels. At these grade levels, students are to be enrolled in occupational cluster learning programs. The intent in these occupational programs is to develop in students appropriate work world skills and attitudes related to a "family" of occupations. The state plan calls for 70% of all students at the 11th and 12th grade levels to be enrolled in these programs by 1978 (OSDE Mini-Report, 1974).

In light of the fact, then, that the state is not just talking about the creation of "healthy" attitudes toward work, but is heavily involved in the implementation of a program designed to produce these attitudes, it seems important to ask, "What do these attitudes look like operationally?" Personal contact with personnel from the State Board of Education has
revealed that little attention has been given to this issue to date at the state planning level. Although the 1972 Annual Evaluation Report of the Oregon Governor's Advisory Council for Career Education included recommendations that work be completed along this line, very little, if anything, has been done. That report stated:

Specifically, the Advisory Council recommends a State Plan with the following features: (1) Precise and functional statistical information; (2) Priorities clearly identified by rank ordering them; (3) Goals and objectives arranged in sequential order, stated in performance terms for quantification or measurement, and subdivided into cognitive, affective, and psychomotor learnings; and (4) An overall shorter, more comprehensible, and specific plan (p. 45).

If these recommendations were to be followed, scales would have to be developed to measure attitudes toward work as a part of the assessment of the "affective" learnings. The remainder of this paper will contain a report of the development of such a scale as well as discussion of the possible use of a related scale. Also, results of a pilot study utilizing these scales will be reported.
CHAPTER IV

ATTITUDE SCALES

The reader will recall from the prior discussion of the alienation construct that the major difficulty encountered with that term in the social disciplines is its unrestricted use. But a note of hopefulness was added through Schacht's (1970) suggestion that operationalization of the construct, in terms of an attitude scale, could allow it to become a useful scientific concept. Following this line of thinking, an attempt was made to construct such a measuring device. The purpose of this device, as originally conceived, was to measure attitudes toward the world of work. As such, it may be seen as an initial step toward the long-range goal of assessment of the attitudinal results of Career Education programs.

I. WORK ORIENTATION SURVEY

A copy of the instrument, called the Work Orientation Survey, is included in the Appendix. This instrument provides one operational definition of the attitude aspect of the alienation construct. In this discussion, the alienation construct has been limited to the state of affairs that exists between a person and the formal organization in which he labors, and the labor need not be work for which he receives money in
payment. Moreover, the individual's attitude toward his personal work world is only one factor in the total definition of the alienating situation.

**Construction**

The test is designed to be used as a general measure over a very broad population, including the high school age group. The individual items on the test have their roots in the alienation literature. Most of the items were originally developed by considering theoretical statements in the sociological and social-psychological literature that supposedly describe the experience of the alienated worker. These claims were then translated into personalized statements that an individual could respond to on a six-point Likert type scale. For instance, item number 32 on the scale, "My job is simply a way to make a living," is derived from a claim that the alienated worker experiences his labor primarily "as a means of meeting other necessities" (Schaff, 1970, p. 24), and from a statement by Broom and Selznick (1963) that "when work does not permit control, evoke a sense of purpose, or encourage larger identifications, the job is simply a way to make a living" (p. 249).

Of the 50 items in the scale, only 32 function effectively (Table IV, Appendix). These items were determined originally by using two samples of 100 each. The two samples were both composed of (a) students from a local summer high school program, (b) friends of a four-member test construction team, and (c) summer school students who congregated in the cafeteria at Portland
State University. Phi coefficient measures of association between the individual items and high and low total test scores were computed for each sample of 100 (Table IV, Appendix). Items with a phi coefficient of .24 or above on both samples were selected as effective items.

Of the 32 effective items, 13 are scored in a positive direction and 19 are scored in the reverse direction (Table V, Appendix). These determinations were made based on theoretical considerations originally, and empirical results were used to verify that they were correct. If an alienated worker could be expected to disagree with an item, the item is scored using the six-point scale as is. But if an alienated worker could be expected to agree with an item, the item is scored in the reverse direction.

Internal consistency reliability coefficients (using Kuder-Richardson Formula #21) were similar for both of the 100 member samples. The reliability coefficient for the first group was .96, and for the second group it was .95.

The test is designed as a predictor of individual effectiveness within the context of a formal organization. Persons who score high on the scale are expected to be ineffective compared with those who score low.

Validation

Validation data on the instrument has been gathered from a stratified random sample of 100 11th and 12th grade students at
an area vocational school in Milwaukie, Oregon, during the 1973-74 school year. Enrollment at the school for that year was 775. The students (five juniors and five seniors) were selected randomly from each of the school's 10 occupational cluster classes. The tests were administered to this sample during the first week of October by staff members of the Northwest Regional Educational Laboratory (NWREL) as a part of a testing program connected with a Career Education evaluation project (NWREL, 1974) being conducted by that agency.

It was hypothesized that the test would be associated positively with the students' absenteeism and negatively with their G.P.A., as well as with measures of effectiveness defined in terms of instructor ratings and employer ratings (for those students involved in cooperative work experience programs). The rating forms used by the instructors and the employers are included in the Appendix.

Validity coefficients, utilizing the above variables are presented in Table I. The absenteeism and the G.P.A. figures were obtained at the end of the semester. One case was lost due to an early drop from the school. The two ratings were obtained during the first week in November (approximately one month after the Work Orientation scores were obtained).

Table I shows that two of the predicted relationships were supported by the data (G.P.A., \( r = -.20, p < .05 \), and Supervisor Rating, \( r = -.32, p < .10 \)). But, apparently, there is no systematic relationship between the Work Orientation measure
TABLE I

WORK ORIENTATION SURVEY PREDICTIVE VALIDITY COEFFICIENTS

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>N</th>
<th>Pearson's r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absenteeism</td>
<td>99</td>
<td>-.02</td>
<td>n.s.</td>
</tr>
<tr>
<td>G.P.A.</td>
<td>99</td>
<td>-.20</td>
<td>.05</td>
</tr>
<tr>
<td>Instructor Rating</td>
<td>100</td>
<td>-.13</td>
<td>n.s.</td>
</tr>
<tr>
<td>Supervisor Rating</td>
<td>26</td>
<td>-.32</td>
<td>.10</td>
</tr>
</tbody>
</table>

and either the Absenteeism or the Instructor Rating variables.

Since the area vocational school in which this validation study was conducted completes follow-up surveys on its graduates at regular intervals, it would be possible to continue the validation process on this same sample of students. Data could be collected on the nature of the work and the nature of the education the students continue in after leaving high school. The expectation would be that students who scored low on the test would continue to follow work and an education related to the field in which they received high school vocational training. Moreover, evaluations from their employers and grades from their training institutions could be collected. Unless the attitudes had changed substantially, those who originally scored low should continue to be effective in their work organizations and training institutions. The Work Orientation Survey could be administered to this same sample again to verify whether or not any substantial
attitude change had taken place.

II. ROTTER I-E SCALE

A line of research which has evolved from the thinking of Julian Rotter (1954, 1966) is related to the issues that are under consideration here. In his "social learning theory" (not to be confused with the social learning theory of Albert Bandura), the notion of a "generalized expectancy" is a major variable. In Rotter's theory, a generalized expectancy has to do with the degree to which a person believes he has control over the reinforcements in a learning situation. People who generally think they exercise a large degree of control over the reinforcements are labeled "internals" and those who generally believe that the reinforcements are controlled by luck, fate, powerful others, etc., are labeled "externals." This definition is to be understood as a matter of degree on a continuum rather than as a clearcut dichotomy. An instrument has been developed to measure this variable. It is referred to in the literature as the Rotter Internal-External (I-E) Scale.

This generalized expectancy variable, with the related I-E Scale for measurement, is significant because of its connection with the alienation construct. One of Rotter's reasons for producing the I-E Scale was to attempt to place the rhetoric associated with the alienation concept on an empirical footing (Rotter, Seeman, and Liverant, 1962). In particular, he tries to get at the "powerlessness" aspect of alienation with the I-E
Scale. The sub-concept of powerlessness comes from Seeman's (1959) definition.

In addition to the relationship between the concepts of alienation and internality-externality, Rotter (1966) suggests connections with other dimensions that are related to work attitude problems. He notes, for instance, that the competence concept of White (1959) and the need for achievement concept of McClelland, Atkinson, Clark, and Lowell (1953) seem to be related to belief in internal versus external control of reinforcements.

Reliability figures on the I-E Scale, using high school students as subjects, are reported in Rotter's 1966 article ($r = .69$, Kuder-Richardson internal consistency). Furthermore, measures on the scale are reported to be significantly related to (a) socio-economic class and (b) 15 separate indices of achievement motivation, such as attempts to investigate colleges, intention to go to college, amount of time doing homework, etc. (the actual correlations were not reported).

A primary way in which Rotter's views are related to education has to do with the fact that scores on the I-E Scale are significantly correlated with academic achievement according to a report by Felton and Thomas (1972). These authors suggest that academic achievement should be studied as a function of individual expectancy. If this functional relation does exist, then it would seem desirable to help low achievers by influencing their generalized expectancy. These authors provide some evidence in support of this possibility.
An exploratory study by Gillis and Jessor (1970) indicated that a person's generalized expectancy could be shifted from the direction of externality to internality through participation in small group psychotherapy sessions. Using this suggestion, Felton and others (Felton & Thomas, 1972; Felton & Biggs, 1972; Felton & Davidson, 1973; and Felton & Boyle, 1973) have reported studies in which students have been helped to shift from an external to an internal orientation. Furthermore, two year follow-up data on low-achievers in one of these studies showed those students to be functioning as well as other students in college settings after having had the internality training. However, it is not clear in their reports whether the effect of expectancy shift was due to psychotherapy efforts or due to the overall learning program that the subjects were involved in. If the shift was due to the learning program, there are important implications. It would be economically feasible to implement learning programs that contain many of the features of the overall program described by Felton and Thomas, but it does not seem possible to provide in regular school settings the type of counseling used by Felton.

The results reported by Felton have led to a study designed to see if a training program alone could produce comparable attitudinal results.
CHAPTER V

A PILOT STUDY

Following the lead suggested by the previously cited studies of Felton et al., attitudinal results of a particular Career Education program in two different high schools were compared. The two schools are located in West Linn and in Milwaukie, Oregon. In this study, it was hypothesized that (a) for the group of students in the Milwaukie program, the difference between pre and postprogram attitudinal scores would be significant and in the direction of internality and decreased alienation, (b) for the West Linn group of students, there would be no significant change in the pre and posttest scores, and (c) significant correlations would be established between the attitude measures and course content measures, using the group of Milwaukie students.

I. METHOD

Overall program effects on the attitudes of students in Electrical Cluster programs in the two high schools were compared. The program in the Milwaukie school is designed to encourage internality (there is a strong emphasis on personal responsibility for learning behavior via self-pacing processes, and the structure of the class is such that there is ample time for individual
student-teacher interaction aimed at encouraging internality. In the West Linn program, the standard group-lecture method of teaching is being used (there is little emphasis on developing internality through individualization procedures).

During the first week of the 1974-75 second semester, data were obtained from students in both programs. The regular classroom teachers administered the tests as a part of normal class activities. The tests given were: (a) the Work Orientation Survey (W.O), (b) the Rotter I-E Scale (I-E), (c) the Basic Industrial Electronics test (B.I.), and (d) the Electricity-Electronics Final test (E-E). Tests (c) and (d) are regularly used in the Milwaukie program to assess end-of-course student achievement for the first year students. This same group of tests was administered again during the last week of the second semester.

Students in both Electrical Cluster programs attend classes two hours each day. All of the students in these programs are boys, 15-17 years old, who have chosen these classes as electives. There are no prerequisites for the courses at either school.

There were 42 students in the Milwaukie program at the beginning of the semester and 36 at the end. West Linn started with 19 and ended with 11. Data were used from those students who completed the programs.
II. RESULTS AND DISCUSSION

Mean pre and posttest attitude scores were computed for each of the two groups. Comparisons, using t tests, were made between those pre and posttest mean scores. The attitudinal change results are summarized in Table II. As the data in Table II shows, there were no significant changes in the means for either group on either test. The data on the W.O. measure were available for only six cases from the West Linn program due to absenteeism on the days the pretests on that measure were administered.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>S.D.</th>
<th>Posttest Mean</th>
<th>S.D.</th>
<th>Mean Change</th>
<th>t Test</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milwaukie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W.O.</td>
<td>36</td>
<td>91.06</td>
<td>20.84</td>
<td>92.78</td>
<td>24.19</td>
<td>+1.72</td>
<td>-0.49</td>
<td>n.s.</td>
</tr>
<tr>
<td>I-E</td>
<td>36</td>
<td>9.53</td>
<td>2.88</td>
<td>9.47</td>
<td>4.00</td>
<td>-0.31</td>
<td>+0.05</td>
<td>n.s.</td>
</tr>
<tr>
<td>West Linn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W.O.</td>
<td>6</td>
<td>93.17</td>
<td>16.44</td>
<td>87.50</td>
<td>22.72</td>
<td>-5.67</td>
<td>+0.73</td>
<td>n.s.</td>
</tr>
<tr>
<td>I-E</td>
<td>11</td>
<td>9.55</td>
<td>2.73</td>
<td>9.18</td>
<td>4.53</td>
<td>-0.37</td>
<td>+0.28</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

In terms of these measures, then, the results do not substantiate any claims for overall mean attitude change for either of these two Career Education programs. However, because
of the lack of random assignment of subjects and the loss of data in one of the groups due to absenteeism, any interpretation of these results would be questionable at best. Another study, under conditions closer to a true experiment, needs to be completed.

In addition to the methodological problems of lack of random assignment and low N due to absenteeism, a theoretical issue makes the finding of no significant change in means questionable. Attitudes are usually conceived of as attributes that remain stable over long time periods, and it might not be realistic to expect group mean changes due to program intervention over a span of time as short as the one semester time period of this study. Students who complete the Electrical Cluster program spend two full years in the program. If measures were taken at the beginning and at the end of that length of time, the results might be different. Certainly, they would be more meaningful.

In order to verify possible relationships between attitudes and achievement measures, students in the Milwaukie program were divided into two subclassifications: (a) those who had been in the program for a semester prior to the initial testing (N = 25), and (b) those who were new to the program at the time of the initial testing (N = 11). Using these subclasses, correlations between the attitude scores and the achievement scores were computed for both the pretest and the posttest data. The results are summarized in Table III.
TABLE III
CORRELATIONS BETWEEN ATTITUDE AND ACHIEVEMENT VARIABLES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Initial</th>
<th></th>
<th>Final</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>r</td>
<td>p</td>
<td>r</td>
</tr>
<tr>
<td>W.O./E-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Students</td>
<td>11</td>
<td>+.06</td>
<td>n.s.</td>
<td>-.06</td>
</tr>
<tr>
<td>Old Students</td>
<td>25</td>
<td>-.29</td>
<td>n.s.</td>
<td>-.27</td>
</tr>
<tr>
<td>Combined</td>
<td>36</td>
<td>-.17</td>
<td>n.s.</td>
<td>-.20</td>
</tr>
<tr>
<td>W.O./B.I.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Students</td>
<td>11</td>
<td>+.19</td>
<td>n.s.</td>
<td>-.17</td>
</tr>
<tr>
<td>Old Students</td>
<td>25</td>
<td>-.22</td>
<td>n.s.</td>
<td>-.45</td>
</tr>
<tr>
<td>Combined</td>
<td>36</td>
<td>-.16</td>
<td>n.s.</td>
<td>-.31</td>
</tr>
<tr>
<td>I-E/E-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Students</td>
<td>11</td>
<td>+.24</td>
<td>n.s.</td>
<td>+.02</td>
</tr>
<tr>
<td>Old Students</td>
<td>25</td>
<td>-.24</td>
<td>n.s.</td>
<td>-.53</td>
</tr>
<tr>
<td>Combined</td>
<td>36</td>
<td>-.12</td>
<td>n.s.</td>
<td>-.37</td>
</tr>
<tr>
<td>I-E/B.I.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Students</td>
<td>11</td>
<td>+.20</td>
<td>n.s.</td>
<td>+.14</td>
</tr>
<tr>
<td>Old Students</td>
<td>25</td>
<td>-.34</td>
<td>.05</td>
<td>-.44</td>
</tr>
<tr>
<td>Combined</td>
<td>36</td>
<td>-.18</td>
<td>n.s.</td>
<td>-.24</td>
</tr>
</tbody>
</table>

The table shows that the correlations for the students who had been in the program for two semesters are stronger (in the direction that theory would predict) in all cases than the correlations for the newer students. Theoretically, the
attitudes should be negatively associated with achievement. At the last testing, for the first semester students, the trends (compared with initial correlations) are in that direction. For the second semester students, most of the final correlations are significant. Furthermore, for the second semester students, two of the correlational changes (W.O./B.I. and I-E/E-E) are significant at the .05 level (using a test for significance explained by Darlington & Nathan, 1974, p. 508).

While these data do not identify any causal relationships, they do lend support to the claim that the I-E scores are related to achievement (Felton & Davidson, 1973). Also, they suggest that the same relationship may exist for the Work Orientation measure. Even though, on the face of it, the Work Orientation Survey and the Rotter I-E Scale are very dissimilar, they apparently measure dimensions that are similar in many respects. Not only do the above data suggest this view, but also the correlation between scores on the two scales lends support. For the 36 cases in the Milwaukie program, the \( r = .53 \) (\( p < .001 \)).

One other suggestive finding of this study is that, for the Milwaukie group, attitude change seems to be taking place, although not in terms of overall group increases or decreases from the mean. One hint of the type of change that may be taking place is found in the fact that there is a significant difference, for the Milwaukie group, in the pre and posttest variance on the I-E measure reported in Table II (\( t = -2.46, p < .05, \) two-tailed test). This may mean that the programs are producing a
polarization effect, increasing the strength of the attitudes at the ends of the attitude continuum. In further support of this notion, the data in Table II show that variance increase was a general trend, although significant for only the one measure mentioned above.

If this kind of attitude polarization is taking place, there are important implications for the Electrical Cluster programs. The correlational data in Table III suggests that the attitude and achievement dimensions become related during the program. If achievement is a function of expectancy, or attitude, as Felton and Thomas (1972) suggest, and if the program produces attitude polarization, then only some students are developing favorably in both areas. This may be a desirable effect for students who strengthen a favorable attitude and also achieve favorably. But what about the students who strengthen an unfavorable attitude and do not achieve effectively? Further research needs to be completed to verify this suggestion regarding attitude polarization.

It may be that the variance difference produced by the Milwaukie program is due to the individualization procedures used there. Perhaps these procedures help one type of student, but not another type. In the one case, the student's attitude is made more positive and high achievement results. In the other case, the student's attitude is made more negative and low achievement results. If this suggestion were to be further substantiated, then a program change should be made, aimed at
helping the student who does not develop satisfactorily under the present individualization techniques.
As Career Education is implemented, undoubtedly a variety of new programs will appear at local school district levels. Also, it can be assumed that predictions of more favorable attitudinal outcomes on the part of students will accompany the plans for new programs. Where this is the case, these new programs could be entered into with the idea of the assessment of attitudinal outcomes in mind. Minimal assessment plans could be written as a part of overall program designs. These plans could identify explicit comparisons that would be made, the measures that would be used, the participant selection process, the nature of the new intervention, and the results that would be expected. Ideally, these plans would call for the random assignment of students to the experimental and comparison groups. Campbell and Stanley (1963) have pointed out that "pre-experimental equation of groups through randomization . . . has been difficult for educational researchers to accept" (p. 2), but this method is possible and should be utilized. Also, there should be pre and post measures taken on both groups. Then, utilizing the data generated by the above methods, comparisons could be made between attitude changes in the new program groups and the other groups.
The following description of a research plan related to a Career Education program is offered as an example of the research model that is being suggested here. The intention is to exemplify the key factors that have been suggested above as minimal research activities that should accompany new programs. There would be variations on this outline, depending on local conditions and the nature of the curriculum being implemented, but the outline should include the model features mentioned above as a minimum requirement.

I. BACKGROUND

This study would take advantage of a situation that has developed in a school district in the Milwaukie, Oregon area. This district has an area vocational school which receives students from three regular high schools in the district. Since its inception eight years ago, students have been bussed to this center for two or three hours per day for vocational training and then are bussed back to their home high schools for their required classes. It has been suggested recently that many students would gain more benefit from spending the entire day at this center, doing their required course work as well as their vocational training there.

As a result of this new trend in thinking, the curriculum is being designed for an interdisciplinary type class through which seniors could receive their English and Social Studies credit. This class is to be a pilot project during the 1975-76
school year. The content of this English and Social Studies class is to have a Career Education orientation. The purpose will be to see if students who choose this alternative will do as well as, or better than, they would if they stayed in the required classes in their home high school.

With this situation as a setting, the following study could be completed. It would provide the school district data for evaluation of the program. In addition, it would provide data relative to the question of expectancy shift, or attitude change, with the accompanying change in academic results, that is being explored by Felton and others (Felton & Thomas, 1972, and Felton & Boyle, 1973).

II. RESEARCH PLAN

Hypotheses

(1) There will be significant favorable change between pre and post program test scores on each test.

(2) Post program test scores will show significantly greater favorable change from pre program scores for the experimental group as compared with the comparison group.

Measures

The following tests would be administered to both experimental and comparison groups at the beginning and at the end of the 1975-76 school year.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Specific Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Sequential Tests</td>
</tr>
<tr>
<td>Writing</td>
<td>of Educational Progress (high</td>
</tr>
<tr>
<td>Listening</td>
<td>school level)</td>
</tr>
<tr>
<td>Social Studies</td>
<td>S.C.A.T. -- Series II</td>
</tr>
<tr>
<td>College Ability</td>
<td>Rotter I-E Scale</td>
</tr>
<tr>
<td>Internality - Externality</td>
<td>Work Orientation Survey</td>
</tr>
<tr>
<td>Attitude Toward Work</td>
<td></td>
</tr>
</tbody>
</table>

**Subjects**

130 high school seniors would be involved. That is the number of students who have demonstrated an interest in scheduling for the program for next year. Since it is impossible to handle all of the students in the program next year, some will have to be turned away. This makes random assignment relatively easy. The students are already aware that the program can only handle 50 students. The students can therefore be told that, in order to be fair, selection into the program will be on a chance basis. Then 50 can be randomly selected from the 130 and scheduled into the program (the experimental group). The other 80 students will represent the comparison group.

**Experimental Group Intervention**

The learning program curriculum and structure will be written following the suggestions of Felton and Thomas (1972) and Felton and Boyle (1973). Using their ideas, the focus of the learning program will be on the processes involved in the development of personal qualities and skills which give rise to mastery, competence, or success in learning tasks rather than on academic content. That is not to say that no requirements will
be made with respect to academic content, but that the focus in all of the classroom activities will be on personal development.

Each student will be required to attend one large group and one small group meeting each week. These meetings will last approximately one and one-half hours each.

In the large group meeting, the emphasis will be on developing personal goal-setting techniques and leadership skills. The *Motivation for Career Success* materials published by Education Achievement Corporation will be used in these meetings.

There will be four small group sessions. Each student will select a different small group session each nine weeks. In this way, the material for each of the four sessions will be covered with each student by the end of the year. First, there will be a session on Personal Writing, in which the suggestions of Felton and Boyle (1973) will be followed with respect to teaching writing skills. Second, there will be a session on Marriage and the Family in which modern societal problems will be explored, using the family as a topical focal point and emphasizing present experience as suggested by Felton and Thomas (1972) for the guidance of the discussion group. Third, there will be a session on Human Relations in Work World Settings in which problematic "cases" in work settings will be role-played. Finally, there will be a session called Thinking with Concepts in which social science concepts will be studied using the process oriented series, *Concepts for Social Studies*, published by Macmillan.

Beyond participation in the group sessions described above,
each student will be encouraged to enter into an individualized personal learning contract in which he will design (with the help of the instructor) and complete a learning project which relates the material of this class to his vocational studies.

Grades will be earned in the following way:

(1) Attendance at the group sessions with active participation will result in a "D".

(2) In addition to #1, completion of weekly assignments related to the group sessions will result in a "C".

(3) In addition to #1 and #2, completion of the activity defined by the individual contract will result in either a "B" or an "A".

Expected Results

These intervention procedures are sufficiently different from the curriculum experienced in the regular English and Social Studies classes to make program comparisons meaningful. The comparison group will be continuing in the current programs. Further, these intervention procedures are sufficiently similar to the approach used by Felton et al. to anticipate changes in expectancy orientation in the direction of internality.

This study will not demonstrate conclusively the proposition that academic achievement is a result of expectancy orientation, but if the hypotheses in this study are supported by the data, that is the conclusion that will be suggested. In other words, by focusing on the process of attitude change, the achievement,
as identified by the measures that have been suggested, should follow if the change in attitude is achieved.
CHAPTER VI

SUMMARY

One aspect of the Career Education movement, the possibility of its use as an attempt to socialize people in terms of attitudes toward work, has been discussed with special emphasis on the difficulties involved in evaluating the development of such attitudes. While it is recognized that there are other important perspectives from which to view Career Education, the position taken here follows that of James Spradley. In his discussion of the various interpretations of Career Education as an educational innovation in our culture, he points out that "the 'real' meaning of an innovation is non-existent; instead, it has numerous meanings for various groups within a culture" (Spradley, 1973, p. 8). To a person with a background in psychology and sociology, the issues revolving around possible changes in attitudes toward work seem important.

The Career Education movement has very powerful political backing at the present time. Terrel H. Bell (Bell & Hoyt, 1974), current U.S. Commissioner of Education, points out that:

We have a Congressional mandate for Career Education. By enacting Section 406, Title IV, P.L. 93-380, the Congress has made Career Education a law of the land. It is no longer simply a project of the Executive Branch of the Government (p. 2).

Moreover, it is the intention of the government to attempt to
develop positive attitudes toward work through this movement. But it is not clear what is intended by "positive attitudes toward work." In a USOE policy paper, Kenneth Hoyt (Bell & Hoyt, 1974) claims that one of the reasons Career Education came into being was because "too many persons leave our educational system . . . unequipped with . . . the work attitudes that are essential for making a successful transition from school to work" (pp. 7, 8). He does not, however, identify what these essential work attitudes are. Later, in the same paper, he states that one of the programmatic assumptions of Career Education is that "positive attitudes toward work can be effectively taught to most individuals" (p. 13). But he does not identify what constitutes a positive attitude toward work.

Similarly, the Oregon plan for Career Education assigns major responsibility for the development of acceptable job attitudes to the occupational cluster phase of Career Education during the 11th and 12th grades in high school (OSDE Mini-Report, 1974); but again, the content of these acceptable attitudes is not defined.

A restricted definition of the construct of alienation has been suggested as a theoretical perspective from which research activities may follow. Hoyt (Bell & Hoyt, 1974, pp. 7, 12), has named worker alienation as one of the conditions behind the call for educational reform and he identifies the classroom as one place where the reduction of worker alienation can begin. It would seem then, that the issues revolving around the reduction
of worker alienation through Career Education would be wide open to researchers. Among the issues that need to be explored are: the nature of worker attitudes of alienation, causal factors in the formation process of attitudes of alienation, the stability of attitudes of alienation once formed, and techniques for promoting attitude change in this area. How much impact, for instance, does the students' home environment and early education have on the formation of attitudes toward work? Are the attitudes relatively stable by the time the student reaches senior high school? Should the high school programs be designed simply to encourage the continued formation of work attitudes, or should the programs be designed to deal with negative attitudes that have already solidified?

The nature of the problems associated with the alienation construct seem to call for a mode of thinking in which there is an integration of sociological and psychological concepts. The possible usefulness of the type of interdisciplinary thinking that has been attempted in the work presented in this paper has been suggested by psychologists Rotter, Chance and Phares (1972, p. 431). But sociologist Melvin Seeman (1972) has spoken in detail about the usefulness of this type of thinking:

I have tried, with all these illustrations, to make only one central point. It is that a systematic psychological theory like social learning theory helps in many ways if one is concerned with the classical problems that have engaged sociological theorists. . . . . I have included a number of quite specific ways in which it helps. It helps in the statement and resolution of conceptual difficulties. . . . . It helps to guide data analysis in systematic ways.
It aids in the design of research by suggesting ways of managing the potentially endless, and sometimes aimless, complicating variables. It helps one to discern the parallel features in propositions which emanate from seemingly unrelated, if not irreconcilable, interests. And it can help as a counter balance to some of the unfortunate features of sociologism by encouraging omnipresent attention to conceptual similarities and formal parallels in sociology and psychology. Perhaps more simply, yet more grandiosely put, what is at stake here is some promise of integrating our disparate social psychologies (p. 404).

Seeman's openness suggests that it is possible for the various social disciplines to develop a common language for at least part of their concepts and this paper represents an attempt to move in that direction with respect to the same construct that he was dealing with -- the construct of alienation.

The work connected with the attitude scale and the pilot study, as well as the plan for a future study, that has been reported in this paper represents a very meager beginning of research on these problems in educational settings. The results associated with the attitude measure and the pilot study were not overwhelmingly impressive, but the test instrument stands as evidence that the attitude aspect of the worker alienation problem is amenable to operationalization and can be quantified, and the pilot study did raise some interesting questions about the nature of attitude change that is being produced by current Career Education programs. Rather than changing group attitudes in a more positive direction, the programs that were studied seem to produce attitude polarization. If this becomes a consistent finding, then program changes will need to be made to deal with
the problem, and the outcomes of those changes will need to be assessed through further research.

A critique of Career Education as a policy has been offered, with primary consideration being given to assumptions that seem to have been held by those who exerted initial influence on the policy development. While it is recognized that all of those who are involved in this educational innovation certainly do not hold these assumptions, the material that was presented in this paper does seem to illustrate the lack of reasoned restraint that sometimes accompany decisions that are made, and, in that light, should remind program implementors, as well as researchers in the area, to reflect upon their own assumptions. Additionally, the critique points out that the structural difficulties that our socio-economic system may present to Career Education may defeat parts of the intended purpose. Having been trained in technical skills, and having developed a desire to work in their fields, individuals may, upon graduation from school, be presented with the non-availability of work in their chosen fields and be forced to work in jobs they do not want. One result of this turn of events could be an increase in attitudes of alienation toward work. Perhaps indoctrination concerning this possibility should accompany Career Education efforts.

The social and social-psychological issues inherent in the Career Education movement are very complex and seem to offer an open field for those who wish to engage in educational research.
Certainly, the problems that have been addressed in this paper should receive more attention. It may be, given systematic research to provide needed information for direction and guidance of the programs, that Career Education could deliver the promised result of reduction of alienation among workers.
REFERENCES


Northwest Regional Educational Laboratory. Interim evaluation report of the NWREL experience-based career education program. Portland, Or.: Northwest Regional Educational Laboratory, 1974.


WORK ORIENTATION SURVEY

PLEASE READ INSTRUCTIONS CAREFULLY

This survey is concerned with the way people feel about their work. Since this is an opinion survey, there are no right or wrong responses. Please go as fast as you can and answer all of the questions. If you do not answer all of the items, we cannot use your questionnaire.

Please read each of these items and circle the number on the scale that indicates the extent of your opinion. Example: If you strongly agree, mark a number one (1): If you slightly disagree, mark a number four (4).

Mark your first impressions. Please do not go back over the items or change your responses. Your opinions should be in relation to your present job or the last job held.

Strongly disagree
Mildly disagree
Slightly disagree
Slightly agree
Mildly agree
Strongly agree

1. On a day to day basis, I enjoy my job. 1 2 3 4 5 6
2. When I'm away from work I think about work. 1 2 3 4 5 6
3. I would be willing to deliberately do things wrong to frustrate the "system". 1 2 3 4 5 6
4. I'm usually on time for work.
5. I always call in when I am late or not going to work.
6. I have serious thoughts about quitting my job because I dislike it so much.
7. I would not quit my job because it would leave my fellow workers in a lurch.
8. My pay is not adequate for my skills.
9. I am proud of the work I do (or last did).
10. Someone has to do my job, but why does it have to be me?
11. Even though it will probably cost me my job, I'm still going to do my thing.
12. I dislike my work because the pay scales where I work are unfair.
13. I would change jobs right now if I wouldn't have to take a cut in pay.
14. I like my job because I get to decide how to do the work.
15. My supervisor is interested in my personal well being.
16. Chances for advancement look good on my present job.
17. I do an honest days work.
18. I have little commitment to the organization in which I work.
19. Although I am encouraged to better myself, I feel that chances for advancement are slim.
20. My present job is interesting and satisfying in and of itself.
21. My present (or last) job satisfies a need to work.
22. I only stay on my present job because I have to.

23. I would not go to work if it were not absolutely necessary.

24. I dislike being at work.

25. I feel more comfortable when away from the job.

26. I like being at work.

27. The main purpose of keeping my job is to get the pay that it affords.

28. I dislike my job and it is only a stepping stone to better things.

29. If I were pushed a little, I would consider throwing a wrench in the works.

30. I work because I like to work.

31. The only reason that I work is because I want to live better than average.

32. My job is simply a way to make a living.

33. Somehow I seem to get to work late frequently.

34. If I work under the supervision of someone I dislike, I will seek a new job.

35. Frequently something happens that keeps me from going to work.

36. If my job were (is) boring, I would look for a new one.

37. I could do my job better if my boss would leave me alone.

38. When I'm put under pressure, I feel that I want to quit my job.

39. I find that self confidence makes me attend work regularly.
40. When the weather doesn't please me, I don't go to work.
41. I like to go to work because I do my job well.
42. A job worth doing is worth doing in a conscientious manner.
43. I get a good feeling when I do a job the way I feel it should be done.
44. Nice days tend to make me more eager to go to work.
45. I work harder on nice days.
46. My job is (was) boring.
47. I resent the authority the "company" has over me.
48. I think my employer treats me as fair as possible.
49. When I'm away from work, I think positively about the people at work.
50. I am a loyal employee.
**TABLE IV**

**PHI COEFFICIENTS FOR EACH ITEM**
**FOR TWO SAMPLES OF 100**

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* Items with phi-coefficients of .24 or above are used in the scoring of the Work Orientation Survey.
TABLE V

DIRECTION OF SCORING FOR INDIVIDUAL TEST ITEMS

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STUDENT EMPLOYEE EFFECTIVENESS RATING

Please give your impression of the effectiveness of

__________________________ on the following scales.

Compare his effectiveness with what you believe his job requires.
For each category, place an "X" on the scale in the place which
seems to best describe his performance.

PRODUCTIVITY:

PUNCTUALITY:

ABSENTEEISM:

COOPERATION WITH SUPERVISOR:

WILLINGNESS TO LEARN AND PROGRESS ON THE JOB:

COOPERATION WITH FELLOW WORKERS:

Scoring Instructions: Each item is scored from zero (poor) to six (excellent). Average the item scores over all six items for the total score.
STUDENT EFFECTIVENESS RATING

Please give your impression of the effectiveness of [student's name] on the following scales. For each category, place an "X" on the scale in the place which seems to best describe his performance.

CURRICULUM OBJECTIVES: how well does this student meet class learning objectives? poor | | | | | | | | | | excellent

TASK PERSISTENCE: does this student stick to learning tasks until they are finished? poor | | | | | | | | | | excellent

WILLINGNESS TO LEARN: does this student seem willing and eager to learn the field that you teach? poor | | | | | | | | | | excellent

CLASS COOPERATION: is this student an asset to the class as a whole? poor | | | | | | | | | | excellent

COOPERATION WITH INSTRUCTOR: how well does this student take and follow instructions and criticism? poor | | | | | | | | | | excellent

Scoring Instructions: Each item is scored from zero (poor) to six (excellent). Average the item scores over all five items for the total score.