WORK VALUES AND ATTITUDES INSTRUCTION AS VIEWED
BY SECONDARY TRADE AND INDUSTRIAL EDUCATION TEACHERS

by

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(ABSTRACT)

The literature suggests that work values and attitudes are just as
important, if not more so, than cognitive and psychomotor skills. However,
there is little data in the literature which actually describes the work values
and attitudes that trade and industrial instructors teach and the pedagogical
techniques they employ to teach them.

The primary objectives of this study were to identify the work values
and attitudes that trade and industrial instructors teach and to describe the
pedagogical techniques they use to teach these skills. Another objective of
this study was to determine whether work values and attitudes are taught
incidentally with cognitive and psychomotor skills, or via targeted learning
activities.

This study utilized the face-to-face interview technique to collect data.
The sample for this study was composed of 50 secondary trade and
industrial instructors who were nominated by their administrators as
successful in teaching work values and attitudes. Because of the qualitative
nature of this study, the analysis explored relationships between the specific
occupational area of trade and industrial instructors and the work values and attitudes they reported teaching. In addition, relationships were explored between the occupational area of the instructors and the pedagogical techniques they employed to teach the work values and attitudes. During analysis, examples and behavioral events provided by the instructors were examined.

The major conclusions of this study were: (1) Instructors directly and indirectly teach numerous types of work values and attitudes to their students. However, the most emphasized work values and attitude clusters were Ambitious, Cooperative/Helpful, Accurate/Quality of Work, Dependable/Reliable/Responsible, and Dedicated/Devoted/Honest/Loyal/Conscientious. (2) Instructors teach work values and attitudes that have been identified in the literature as most important. Though it became evident that instructors emphasized some work values and attitudes more than others, all the identified work values and attitudes have been recognized in the literature as important. (3) The instructors reported using several different pedagogical strategies to teach work values and attitudes. The most frequently identified pedagogical strategies were: reward structure, group discussion, one on one counseling, role modeling, and role playing. (4) The majority of these secondary trade and industrial instructors taught work values and attitudes incidentally with cognitive and psychomotor skills. (5) These secondary trade and industrial instructors used both democratic and indoctrinational pedagogical techniques extensively to teach work values and attitudes.
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Chapter 1

INTRODUCTION

Background of the Problem

Since its formal inception in the early 1900's, vocational education has been concerned with shaping students' work values. In fact, Cremin (1961) maintained that one of the most important reasons that vocational education was implemented in the public schools was because of the marked increase of immigrants from southern and eastern Europe in the late 1800's. These immigrants were perceived to be "... illiterate, docile, lacking in initiative, and without Anglo-Saxon conceptions of liberty, law, and order" (Tyack, 1974, p. 75). Urban reformers believed that one of the most effective ways to reduce crime, violence, and juvenile delinquency in the expanding ghettos would be to socialize these immigrants through the public school system.

Many renowned individuals of the time (i.e., Charles Elliot, John Dewey, David Snedden, Charles Prosser) and organizations (i.e., National Education Association, National Society for the Promotion of Industrial Education, National Association of Manufacturers, and American Federation of Labor) participated in the debate over who should be enrolled in vocational education and how vocational education should be taught in the public schools (Wirth, 1980). As some predicted, the availability of more relevant programs, such as those offered by vocational education, did seem to lower the frequency of problems such as the dropout rate (Tyack, 1974).
Wirth (1980) did not dispute that educators, public officials and industry leaders, in the early 1900’s, wanted to inculcate students with work values. However, he pointed out that it was quite logical for public educators to be concerned with moral education, because most private education prior to the 1900’s included religious instruction and the European and American apprenticeship systems required religious instruction. Although some espoused social efficiency (Snedden, Prosser, Elliot, Taylor), others perceived this philosophy as indoctrinational and exploitative (Dewey). Despite such differing philosophies, all agreed with Rousseau that teachers must include some moral instruction or the educational experience would be negative.

Over 70 years later the literature indicates that business and industry are just as concerned, if not more so, with employees’ affective skills than with their cognitive or psychomotor skills (Kazanas, 1978; Pascarella, 1984). Though business and industry have historically emphasized the necessity of a “good” work ethic for those entering the work force, this concern seems to be becoming increasingly more pronounced. For example Cherrington (1980) stated:

Many managers have complained that today’s work force does not have the same values as previous generations. The evidence indicates that the claims of these managers are generally correct. Members of today’s work force, especially young workers, do not have the same attitudes as previous generations toward the importance of work, pride, and craftsmanship. Their reasons for holding a job are different, and work itself serves a different purpose for many of today’s employees. (p. 8).
While interviewing business and industrial leaders, Gooding (1972) found that a majority of respondents believed the work ethic was disappearing. Respondents expressed similar sentiments to what one personnel director for a billion dollar manufacturing corporation said:

An increasing number of employees that this company hires do not know how to work. There once was the belief in this country that hard work was good. Now it seems as though young people often believe that work is something to be avoided rather than performed. (p. 8)

Though much of the literature on worker dissatisfaction focused on the blue-collar worker, Walters (1975) stated that problems such as high absenteeism, tardiness, and high turnover, are "... just as common to the office as they are to the shop floor" (p. 5). He contended that, in the past, white-collar workers perceived themselves to be next to management, but today they more often feel like "... just another cog in the machine" (p. 5). Walters credited several factors for this transformation. The first and most important factor is that no employee group in this nation is growing as fast and changing as rapidly as the white-collar worker. Second, it appears that even such highly educated workers as engineers have attitudes toward management that are similar to blue-collar workers. Third, because this country is shifting from an industrial economy to a service and information economy, Walters contended that the data processor has replaced the drill-press operator as the average American worker.

To combat these perceived affective deficiencies of workers, business and industry have employed many strategies. Historically, pay raises and fringe benefits have been selected as a strategy to improve white-collar and
blue-collar workers' attitudes and subsequently their productivity (Schartz & Neikirk, 1983). Schartz and Neikirk believed that money has been used as the controlling variable in worker motivation and industrial production because it is the symbol of management's entrepreneurial ability. They maintain management has in general assumed labor works primarily to satisfy economic needs: i.e., "... for food, shelter, clothing, and an occasional amenity" (p. 16). As a result management believed it could control labor through the manipulation of formal rewards and punishment. Schartz and Neikirk conceded that workers who experienced the Great Depression were more concerned with meeting what Maslow identified as their physiological needs. However, they emphasized that this generation of workers was able to secure the basic needs for present and future prosperity and a relatively good standard of living for their families. With this accomplished, the workers started formulating the American dream that their children could live better lives than them -- attain more education and acquire better jobs (i.e., more interesting and prestigious jobs unavailable to the parents).

Schartz and Neikirk (1983) argued that economic rewards are not effective for the "New Breed". They stated that the perception among employers is that it has become increasingly difficult to find employees with a strong work ethic. This perception is based on such observed behaviors as a preference for shorter work time and for earlier retirement; absenteeism, alcoholism, and drug abuse; and reliance, sometimes obviously excessive, on unemployment compensation and welfare assistance (Schartz & Neikirk, 1983).
The above statements suggest that only recently have employers been dissatisfied with worker attitude and behavior. This is not the case. In fact, Henry Ford drew the conclusion in the early 1900's that "man is lazy, irresponsible and has to be closely supervised" (Hudson, Miller, & Soujanen, 1975, p. 5). Ford came to this conclusion when workers reacted negatively (in 1913 alone his work force turnover rate surpassed 380%) after he had implemented mass production in his plant (Zuboff, 1983). To increase worker loyalty and performance, Ford and others in management, increased pay and benefits. Gooding (1972) maintained that this strategy proved somewhat effective in an era "... when a job was for survival and the fifty-four-hour week was considered normal" (p. 92). In addition, he pointed out that a raise then could actually increase one's standard of living. But when such companies as General Motors gave raises and increased benefits, absenteeism more than doubled (Gooding, 1972). Thus, it is not surprising that many companies, including General Motors, Ford, and AT&T began to suspect that a company's formal organization can conflict with the workers' informal system.

From this impetus, and research produced by Maslow (1954), McClelland (1972), and the Hawthorne studies of Western Electric Company (as cited in Hudson, et al., 1975). American corporations began to question whether economic rewards alone necessarily increase workers' productivity. Because of this, management began implementing different organizational approaches and assigning some of the responsibility to instill "proper" worker attitudes in future workers to education, especially vocational education.
Hudson et al. (1975) recognized five different organizational approaches to increase the affective competencies of workers that are based on two beliefs. The first belief is that the traditional pyramidal organization demands only minimal utilization of ability from workers at the lower levels of the organization. The second belief is that the value employees place on their work is dependent on the nature of their jobs. The five approaches Hudson et al. list are (a) industrial democracy, (b) job enrichment, (c) organizational development, (d) participative management, and (e) sociotechnical systems. Though these approaches are quite different in their orientation, they all are an attempt to provide an organizational environment that is conducive to workers and hence productivity.

The success of these approaches has been reported in many case studies (Jain, 1980; Mason, 1982; Sell & Shipley, 1979). Thus, the trend seems to be that the future American company organizational structure will begin to resemble those of many Japanese, Scandinavian, and European companies. Yankelovich (as cited in Pascarella, 1984) argued that organizational structural redesigns are also becoming more common place because more people believe that a worker's failure to do a good job does not necessarily mean a loss of the work ethic. He argued that many workers may have the attitude necessary for wanting to work, contribute, and participate, but that the work structure is such that it does not provide them with the opportunity. In addition, the Japanese contend that American corporations are reluctant to increase communication between workers and management (Sengoku, 1985).
In contrast to Yankelowich's position, other literature has suggested many employers and educators believe that though these various approaches are needed, they are not sufficient and today's workers need effective training in the area of affective work skills (Kazanas, 1978; Luft & Suzuki, 1980; Petty, 1983). Persons espousing this position state that "the popular literature from 1900 to 1975 supports the contention that the importance of hard work, perseverance, and industry has not been propagated in society as frequently or as enthusiastically in recent years as it was in the past" (Cherrington, 1980, p. 23). Evidently that is why many business leaders are calling for a renewed effort from educators to teach affective work competencies. An example of this sentiment is a statement made by the manager of plant training programs for Westinghouse Electric Corporation, Robert Watson (1982), who said in an article to vocational educators that "... I believe you must develop a program of employment skills that will address the old problem of attitude - behavior, being on time, cleaning up, general work habits" (p. 35). In addition Cherrington (1980) maintained:

... while job enrichment, participative management, and job autonomy may be important factors for work oriented employees, they do not cause the work ethic. Participation and loose supervision cannot simply be tossed to the worker and expected to promote an increase in work values. This does not mean that the work ethic of older employees cannot be influenced. But it does suggest that discipline and self-control are fundamental characteristics of the socialization process and very important elements in developing the work ethic (p. 78).
Not only do educators and employers believe that young people do not have sufficient affective work skills, but the public in general seems to share this belief. In a poll conducted for *Time* magazine, Yankelovich reported that 90% of the respondents surveyed believe that "young people are not equipped with the work ethic because parents have failed to imbue their children with decent moral standards" (Bowen, 1987, p. 26). When one considers the magnitude of this perception, it is not surprising that a Gallup poll, which randomly surveyed a sample of adult Americans found that four out of five persons supported some form of moral instruction in public schools that contain components of the work ethic (Atkinson & Ogletree, 1982).

Though there seems to be a consensus that moral instruction and the work ethic in particular should be included in the curriculum of our public schools, there are extremely strong disagreements about how it should be taught, when it should be taught, and where it should be taught. Such arguments have existed in vocational education since its origins. John Dewey (1916, 1969) argued that all education is moral in its process. However, Dewey (1897) adamantly opposed the use of directive pedagogical techniques because he perceived them to be an attempt to indoctrinate students. In contrast, Prosser and Snedden argued that if students were going to be successful in the world, they had better be equipped with the affective skills that industry needs in its workers. Though these two perspectives are at opposite ends of the spectrum, both contend that ethical instruction should be integrated into vocational classes rather than develop specific classes only for ethical instruction.
Hurn (1987) argued that most schools informally employ a "hidden curriculum" which certainly attempts to teach a work ethic. Recognized by Benson Snyder in 1971, the hidden curriculum has received so much attention from educators and social scientists that Hargreaves now refers to the concept as the paracurriculum (Ballentine, 1983). Miller and Coady (1983) identified rote learning, lecture, and rigid rules as examples of the hidden curriculum. Though Bowles and Gintis (1976) and Anyon (1980) stated that the hidden curriculum is alive and well, they argued that much of the schools' ethical instruction is not hidden. They, like Dewey and Kohlberg (Mitchell, 1983), contended that such activities as memorization of creeds and pledges were a blatant attempt to indoctrinate students.

Casement (1983) associated indoctrination with propaganda, censorship, absolutism, and authoritarianism. Thus, he perceived indoctrination to be a process by which students are given information in such a manner that they are discouraged or prevented from questioning its validity. Thus to practice indoctrination, the instructor must use pedagogical techniques which minimize student input. Such pedagogical techniques might be more accurately described as training rather than teaching since the intention is to stifle critical thinking and to instill blindly accepted beliefs.

Charles Prosser and David Snedden advocated an indoctrinational approach. They argued that moral education is an integral part of any instruction and that developing affective work skills is one of vocational education's primary purposes. Nevertheless, Prosser and Snedden maintained that students could and should learn, without question, the
ethical standards of dominant society and the professional ethics of the
desired occupational area (Prosser, 1939). Their approach was well received
by proponents of Taylorism and by those who saw it as a possible solution to
problems stemming from immigration, industrialization, and urbanization
(Tyack, 1974).

When one examines the Vocational Industrial Clubs of America (VICA)
creed (Penner, 1978, p. 5B), it is obvious that honesty, patriotism, and
respect for authority are considered desirable work attitudes and values.
However, as Purta and Schwille (1983) pointed out, these values are also
supportive of the political-economic status quo. In addition, Purta and
Schwille maintained "no matter how virtuous a trait might appear to be,
there is no justification for inculcating it" (p. 103). Copa (1984) agreed with
this assessment and suggested that such vocational training could very well
transform vocational programs into the latest military recruiter.

Though Dewey, Piaget, and Kohlberg, have been described as strong
advocates of ethical instruction (Mitchell, 1983), it was their perspective
that educators should be nonpartisan in their approach. In fact, Dewey
(1916) described his approach to ethical instruction as democratic. Dewey
used this term because he believed that such an approach was not only more
humanistic, but also because it better prepared students to participate in a
democracy. The intent then of the democratic approach is to raise student
consciousness about values, attitudes, and worker responsibilities. The
democratic process provides students with the opportunity to alter or affirm
their work ethic. Miller and Coady (1986) stated that this can be
accomplished by having students "... make a choice regarding a particular
ethical problem or issue, controversial question, area of debate, or policy affecting the world of work and to justify that choice through a process of value assessment" (p. 11). They stated that such pedagogical techniques as role-playing, simulation, and group discussion are democratic in nature because they encourage students to explore their attitudes and do not advocate one particular outcome. The goal then of the democratic approach is to show students the need to adapt to change and yet to also convince students that they have the power to shape and direct change (Dewey, 1909, 1916).

In their book, "Schooling in Capitalist America," Bowles and Gintis (1976) criticized the indoctrinational approach as being exploitative. They and Anyon (1980) argued that certain tracks in schools, and vocational education in particular, serve the interests of the power elite by instilling in working class students the work attitudes and values needed for a compliant and efficient labor force. This practice, they contended, is in contrast to academic classes designed for upper-and middle-class students which utilize a democratic approach that emphasizes attitudes and values appropriate for professional and management positions. Casement (1983) and Greenan (1983) countered this argument by suggesting that if vocational education is attempting to indoctrinate students to become "robot-like," it must not be doing a very effective job. Casement and Greenan each provided evidence that employers who hire vocational graduates seem to be satisfied with the graduates' cognitive and psychomotor skills but the employers are not satisfied with vocational graduates' affective skills. Pincus (1980) agreed with Casement and Greenan, but he suggested that the reason industry is not
satisfied with employees' affective skills is because management wants workers that are willing to work for low wages and be loyal to the company instead of a union.

Kohn (1968) provided evidence that parents are more effective than schools at producing blue-collar workers with "appropriate" work values and attitudes. His research suggested that children of lower-status parents and children of higher-status parents receive differential treatment long before they enter school. He stated that "while middle-class parents encourage exploration, curiosity, and control over aggressive impulses in the children, working-class parents emphasize conformity to external rules, obedience, and respectability" (Hurn, 1985, p. 194). Though Kohn's research was performed over two decades ago, parents still play an important role in the socialization process (Bush & Simmons, 1981). Nevertheless, many demographic trends have arisen since 1968 that have impacted on the role of parents as socializing agents. One such trend is that twice as many marriages end in divorce today than in the late 1960's (Bumpass, 1985). Another trend is that 59% of black children today are born to unmarried mothers (Baldwin, 1986). This is a significant demographic trend because unfortunately, race is closely related to socio-economic-status. A third trend is that there has been a 75% increase of women with children under three in the work force since Kohn performed his study (U.S. Bureau of Labor Statistics, 1985). Though the ramifications of the above family trends are difficult to assess, it seems evident that parents are spending less time with their children and that many children only have the mother for a role model. It is because of such trends that Gecas (1981) concluded there has been a
decrease in the power of the family and an increase in the power of peer groups as socializing agents.

Though philosophical perspectives differ greatly, they all have recognized that business and industry desire workers who possess specific work values and attitudes. Consequently, employers have expressed a preference for vocational education graduates equipped not only with cognitive and psychomotor skills but affective skills as well. As in the words of Mike Herriot, personnel director for Joa, Inc., "if a new employee has difficulty reading a blueprint we can teach him that but how are we going to teach self-discipline, initiative and a willingness to learn?" (Ellerbach, 1977, p. 31).

To maximize the chance for a graduate to experience success in the world of work, to attempt to meet industry's needs, and to try to correct worker deficiencies, vocational educators support incorporating affective competencies in their curriculum (Miller, Rubin, & Glassford, 1987). In fact, some research findings recommend that vocational educators concentrate their efforts on affective skills instead of assuming that affective competencies are acquired incidentally while learning cognitive and psychomotor skills (Beach & Kazanas, 1981; Kazanas, 1978). Luft and Suzuki (1980) argued that "the importance of nontechnical employment competencies justifies their inclusion in vocational education instructional programs in an effort to assure longevity of employment and economic rewards in occupations for which students are prepared" (p. 79). Some research suggests that since the relationship between job success and affective work competencies is so strong, vocational education has no choice
but to incorporate affective instruction into the curriculum (Miller et al., 1987).

Statement of the Problem

The literature contains many studies which identify important affective work skills. However, there is little data in the literature that has actually described the work values and attitudes trade and industrial instructors teach and the pedagogical techniques they employ to teach them. And, contrary to statements made by those involved in vocational youth organizations, there is evidence which suggests that affective competencies are often taught incidentally with cognitive and psychomotor competencies (Crosby, 1984).

A review of the literature suggested that many secondary trade and industrial instructors consider the acquisition of desirable work values, behaviors, and attitudes by students an incidental factor in an instructional program. In addition, trade and industrial teachers who do emphasize the teaching of affective work competencies in their instruction may be using primarily indoctrinational pedagogical techniques as opposed to democratic pedagogical techniques in teaching affective work competencies to their students. There are many reasons this may be the case. First, trade and industrial curriculum guides that do contain affective work competencies provide little or no insight into what the most appropriate pedagogical techniques are for affective work competency development (Gregson, 1987). Second, many trade and industrial instructors enter the teaching profession directly from industry and thus have come from an industrial environment
which may have emphasized cognitive and psychomotor competencies in the training of its employees. Third, it is quite probable that, because of a concern for efficiency, the industrial setting utilized indoctrination approaches when it did address affective concerns. Fourth, a significant percentage of trade and industrial instructors do not earn a baccalaureate degree. As a result, trade and industrial instructors may have limited formal exposure to democratic pedagogical strategies.

The democratic approach to teaching affective work competencies may be appropriate for secondary trade and industrial students. There are several reasons for this. First, it is evident from the literature that vocational education has been assigned the task of teaching desirable work habits. Second, society and the work place are changing so rapidly it is difficult to predict which specific affective work competencies will be needed by tomorrow's workers. Thus, because students taught via the democratic approach have learned a process for developing affective work competencies as opposed to learning specific ones, they may be better prepared for rapid change than students taught affective work competencies through an indoctrinalional approach. Third, the democratic approach may be superior to the indoctrinalional approach because it appears that future organizational structures may involve more worker participation (Hudson, Miller, & Suojanen, 1975; Miller & Coady, 1986). Worker participation requires critical thinking by the workers and the democratic approach encourages critical thinking while the indoctrinalional approach does not. Fourth, there is data which suggest that democratic approaches are more effective than indoctrinalional approaches in contributing to ethical behavior.
by students (Kohlberg & Wynne, 1987). And fifth, the democratic approach, unlike the indoctrination approach, provides a service to students by offering instruction appropriate for workers who could occupy either labor or management and professional positions.

Research Questions

Data are lacking about which work attitudes and values are taught in vocational programs and on the pedagogical techniques teachers employ to teach them. Therefore, the primary objectives of this study were to identify work attitudes and values that secondary trade and industrial instructors teach and to describe the pedagogical techniques they use to teach them. Another objective of this study was to explore whether work values and attitudes are taught incidentally with cognitive and psychomotor skills, or whether instructors prepare specific learning activities to teach work values and attitudes. More specifically the research questions associated with this study were:

1. What types of work values and attitudes do secondary trade and industrial instructors, who have been identified as successful, teach to their students?
2. To what extent are the work values and attitudes taught by trade and industrial instructors similar to those work values and attitudes reported in the literature as most important?
3. What pedagogical techniques do these teachers use to teach work values and attitudes?
4. To what extent do teachers design specific learning experiences to teach work values and attitudes or do they teach work values and attitudes incidentally with cognitive and psychomotor skills?

5. To what extent are pedagogical techniques that secondary trade and industrial instructors use to teach work values and attitudes democratic or indoctrinational?

Rationale for the Study

Research has suggested that affective skills are just as important, if not more so, than cognitive and psychomotor competencies (Kazanas, 1978; Petty, Kazanas, & Eastman, 1981). The United States Department of Education identified vocational programs, and their youth organizations, as crucial to the development of future workers' job attitudes (Harris & Sweet, 1981). The Carnegie Council on Policy Studies in Higher Education (1979) recommended that secondary schools should place an emphasis on good work habits. Many educators state that vocational education should teach work values and attitudes found in the affective domain (Benson, 1982; Lynch, 1979; McGough & Kazanas, 1979; Nelson & Nies, 1978). However, though there seems to be a consensus among vocational teachers and researchers for the inclusion of affective work competencies skills in the vocational curriculum (Miller, Rubin, & Glassford, 1987), there are strong disagreements on how they should be taught (Ballentine, 1983). In fact, vocational education has been criticized for using primarily indoctrinational pedagogical techniques to teach affective work competencies (Anyon, 1980; Bowles & Gintis, 1976; Hurn, 1987).
The literature abounds with information about which affective work competencies are needed to be successful in specific occupational areas (Kazanas, 1978). In addition, both the educational literature and the social psychological literature have stated that democratic pedagogical techniques are more effective in changing attitudes than indoctrinational pedagogical techniques. However, conflicting data exists regarding the pedagogical techniques that trade and industrial instructors use in teaching affective work competencies. For example, Nelson and Nies (1978) argued that vocational instructors use primarily pedagogical techniques that social scientists recognize as effective. In contrast, Bowles and Gintis (1976) contended that vocational education instructors use primarily indoctrinational pedagogical techniques. Thus, due to the conflicting data on the pedagogical techniques that trade and industrial instructors use to teach students affective work competencies, the need exists to address the following questions: What pedagogical techniques do trade and industrial teachers use in teaching affective work competencies? Are the techniques primarily indoctrinational or democratic? The answers to these questions should provide useful data for vocational instructors, administrators, curriculum developers, vocational student organization advisers, and teacher educators.

Assumptions

This study was based on the following assumptions:
1. It can be determined through interviews with instructors which pedagogical techniques trade and industrial instructors use to teach affective work competencies.

2. Directors of secondary area centers can identify the trade and industrial teachers who are effective in teaching work values and attitudes.

Delimitation

The following delimitation was associated with the study:

1. The Virginia trade and industrial instructors selected to be interviewed may not be representative of all trade and industrial teachers within the state of Virginia.

Definition of Terms

The following definitions of terms used in this study correspond with the use of these terms in other major studies:

**Affective work competencies:** A set of work values, habits, and attitudes, nontechnical in nature, which in our society are considered necessary for survival and promotion in the working world (Kazanas, 1978). Changing student work values and attitudes is complex in nature and difficult to measure. Competency-based instructional profiles contain primarily cognitive and psychomotor competencies (Gregson, 1987).

**Democratic approach:** An approach which emphasizes the critical thinking of students about the predominant values of society or of a given
occupation. It makes the assumption that for persons to become truly ethical, they must first question conventional ethical standards. This approach advocates using such pedagogical techniques as group discussion, problem solving, and role playing (Mitchell, 1983). However, the literature suggests that democratic strategies can be used in an indoctrinal manner (e.g., directive counseling).

**External reliability:** It addresses the issue of whether independent researchers would discover the same phenomena or generate the same constructs in the same or similar settings (LeCompte & Goetz, 1982).

**External validity:** Addresses the degree to which representations may be compared legitimately across groups (LeCompte & Goetz, 1982).

**Indoctrinal approach:** An approach which attempts to pass on the moral and ethical values of dominant society or of a given occupation. It makes the assumption that when persons choose to enter a given occupation, they should also accept its ethical standards without question. This approach advocates using such pedagogical techniques as rote learning, rigid reward structure, and role-modeling (Berkowitz, 1984). However, the literature suggests that indoctrinal strategies can be used in a democratic manner (e.g., student input in creating program reward structure).

**Internal reliability:** Refers to the degree to which other researchers, given a set of previously generated constructs, would match them with data in the same way as did the original researcher (LeCompte & Goetz, 1982).

**Internal validity:** Refers to the extent to which scientific observations and measurements are authentic representations of some reality (LeCompte & Goetz, 1982).
Nontechnical skills: Values, attitudes, and appreciations that are deemed important for successful employment. This term is frequently used synonymously with affective work competencies.

Occupational area: For purposes of this study, defined as the program area in which the instructor teaches (e.g., automotive mechanics, building trades, cosmetology).

Taylorism: Taylorism is used to describe the belief espoused by Frederick W. Taylor. In his book, "The Principles of Scientific Management" (1911), Taylor argued that it is advantageous for management to "deskill" craft work in the factory. He recommended minutely subdividing work into small, routine tasks to accomplish this (Hall, 1987).

Vocational student organization (VSO): A national organization for students enrolled in a vocational education program that is considered an integral part of the curriculum for students to attain positive work attitudes. Vocational Industrial Clubs of America (VICA) is the VSO for trade and industrial students.

Chapter Summary

This chapter has presented problems industry is having with employees and described the dual mission of vocational education: to provide employees with the skills needed to attain and retain work and to provide employers with employees that are capable of fulfilling industry's needs. Literature examined suggested that vocational education should teach affective work competencies and that vocational education does teach
affective work competencies, though often incidentally, through such means as VSO's, laboratory experiences, and various other techniques. The research questions were: What work values and attitudes do trade and industrial teachers consciously teach to students? What pedagogical techniques do trade and industrial teachers use to teach work values and attitudes? Assumptions and a delimitation of the study were also identified.
Chapter 2

REVIEW OF RELATED LITERATURE AND RESEARCH

Overview

The literature strongly suggested that affective work skills are just as important, if not more so, to job success and survival as are cognitive and psychomotor skills. Three factors have been identified that contribute to this. First, the labor-intensive economy is being dominated by service-oriented and information-processing industries (Silvestri, Lukasiewicz, & Einstein, 1983). This type of labor market requires many highly motivated workers (Craven, 1977). Second, technology is changing so rapidly that specific job tasks will continue to become obsolete while generalizable work behaviors will become increasingly more important (Industrial Relations Research Association, 1983). Third, there is at least a perception by employers that it has become increasingly more difficult to find employees with a strong work ethic (Cherrington, 1980). This perception is based on such observed behaviors as a preference for shorter work time and for earlier retirement; absenteeism, alcoholism, and drug abuse; and reliance, sometimes obviously excessive, on unemployment compensation and welfare assistance (Walters, 1975).

Research that has uncovered the primary reasons workers lose their jobs has contributed to a greater understanding of what employers want in employees. Boynton (1955) conducted one of the earliest studies to
determine reasons that employees are discharged. He collected data from 76 large corporations and found that the vast majority of workers were discharged because of undesirable affective characteristics such as noncooperative behavior, low motivation, dishonesty, and lack of courtesy.

A similar study was performed by the Career Orientation and Exploration program at the Current River Area Vocational School in Missouri (1973). The reasons identified by those companies polled included an unwillingness to follow rules, irresponsibility (e.g., absenteeism, tardiness), lack of adaptability, and misrepresentation.

Kazanas (1978) combined the reasons why employers discharge or fail to promote employees that were produced by the Boynton (1955) and the Current River (1973) studies to help formulate work competencies for vocational education. This effort produced a list of 15 reasons that were constructed into competencies, and none of them related to specific job skills or technical job knowledge. Also, seven of them were common to both studies.

Other industrial studies have reflected similar findings. Burns (1973) found that personal characteristics were the reasons that most workers did not progress or advance in their organizations. Wilson (1973) concluded that more people fail or lose their jobs because of personal qualities or general attitudes rather than insufficient cognitive or psychomotor skills.

Another study performed in a different geographical area showed similar results. "The Texas Statewide Employer Survey results showed quite clearly that the majority of the problems being experienced by blue collar workers lay not in the area of technical development, but in a more elusive
area, that of personality and overall adjustment to the work situation (Craven, 1977, p. 32). This survey also found that among the five top causes of employee termination, each one is in some way related to personality and behavior difficulties.

Because of the evidence that those entering the work force are lacking certain work values and attitudes, many argue that vocational education can no longer continue to emphasize only cognitive and psychomotor competencies if it is truly interested in attempting to meet employer and employee needs. To facilitate the teaching of affective competencies, educators have identified affective reasons employees are dismissed or fail to be promoted, the affective competencies considered important by employers, and the differences and similarities between affective competencies from one occupational area to another.

The factors cited in the above overview have contributed to the belief held by many that vocational education must teach work values and attitudes if it is to accomplish its dual mission. A review of the literature was performed so that the basic problem could be better conceptualized and research questions further refined. The literature review is grouped into the following categories: (a) literature related to the affective domain in education, (b) literature related to affective work competencies, (c) literature related to attitude and attitude change paradigms, and (d) literature related to the interview.
The Educational Literature on the Affective Domain

It has long been recognized that the performance of some work imposes different requirements upon the performer than does the performance of others. As early as 1949 a committee of college and university researchers conducted extensive study in this regard which resulted in the identification of three categories or domains of behavior (Bloom, Englehart, Furst, Hill & Krathwohl, 1956). The cognitive domain includes those competencies which require the recall or recognition of knowledge and the development of intellectual skills (Bloom et al., 1956). The psychomotor domain includes competencies which emphasize some muscular or motor skill, some manipulation of material and objects, or some act which requires a neuromuscular coordination (Krathwohl, Bloom, & Masia, 1964). The affective domain includes competencies which describe changes in interest, attitudes, values, and the development of appreciations (Krathwohl et al., 1964). These domains make it possible to examine the different types of human capabilities the course of instruction is intended to develop (Crittenden & Massey, 1978). Thus, not only does the establishment of these domains help to group specific competencies of a similar nature together, but it also enables the planning of internal and external conditions required for successful learning.

Krathwohl et al. (1964) stated that, "... although one could place an objective very readily in one of the three major domains, no objective in one domain is entirely devoid of some components of the other two classes" (p.
4). In fact, Krathwohl et al. said that they hesitated to adopt this threefold division except on the practical grounds that objectives are so stated that they generally fall rather easily into one of the three divisions.

Ringness (1975) supported this assertion and added that the domains of behavior simplify the description of an act and facilitate its analysis.

Educators who have participated in affective competency research concede there are many problems in teaching affective competencies even once they have been identified. First, Kazanas (1978) contended that effective teaching techniques and instructional strategies have not been identified for affective competencies. Second, even though affective competencies have been identified and validated, they have not been objectively quantified (Porreca & Stallard, 1975). Third, since attitudes are internal, students' behaviors must be evaluated (Pascarella, 1984). Thus, it is difficult to avoid some subjectivity when evaluating affective competencies (Krathwohl, et al., 1964). Fourth, approaches to teaching affective competencies in vocational education have varied from one that has emphasized training, conformity, and authority, such as Sneddon and Prosser's indoctrinational approach (Bowles & Gintis, 1976), to Dewey's democratic approach that encouraged questioning of established norms and allowed students to form their own conclusions (Ringness, 1975).

Despite the above problems, the Vocational Education Infusion Project clearly showed that vocational teachers and researchers strongly support the inclusion of affective competencies in the vocational curriculum (Miller et al., 1987). The rationale behind this support is illustrated by Finch and Crunkilton's (1984) description of vocational curriculum:
The vocational and technical curriculum deals directly with helping the student to develop a broad range of knowledges, skills, attitudes, and values, each of which ultimately contributes in some manner to the graduate's employability. The vocational and technical education learning environment makes provision for student development of knowledges, manipulative skills, attitudes, and values as well as the integration of these areas and their application to simulated and realistic work settings. (p. 10)

The literature has not been totally consistent on the degree to which vocational programs have been successful in assisting students in acquiring affective work skills. For example, Johnson (Askari, 1978), Benson (1982) and Van Hook (1986) suggested that vocational programs, and vocational youth organizations in particular, can help assist students in attaining positive work attitudes. Faddis (1979) and Greenan (1983) contended that, in general, vocational graduates have not acquired the affective competencies necessary to succeed in the world of work.

Summary

Literature related to the affective domain can be summarized as follows: (a) Though the identification of three learning domains greatly assist in analyzing specific acts, every competency has elements of the other two domains. (b) Affective competencies have not been quantified. Instructional strategies have not been developed for them. And, evaluation of affective competencies often tends to be subjective. As a result, there are many problems in teaching affective competencies. (c) Despite the problems, industry and vocational educators strongly believe that affective competencies should be taught.
Literature Related to Affective Work Competencies

Affective Work Competencies (AWC)

In the past decade there has been an abundance of research performed which has suggested that affective competencies need to be included in vocational curriculum to better prepare students for work (Beach & Kazanas, 1981; Greenan, 1983; Leach & Nelson, 1978, Luft & Suzuki, 1980). Such affective competencies have even been labeled as survival skills (Nelson, 1977).

Attempts to identify affective work competencies to implement in vocational programs have varied greatly in their approaches. For instance, using the interview method, Johnson (1973) taped 16 sessions between educators and business leaders. These meetings produced only three affective competencies, but the three, punctuality, accuracy, and dependability, were found on every affective competency list reviewed in this study.

Ellerbach (1977) reported a dialogue between a metals instructor and a personnel director for a company that produces machines for the manufacture of disposable products. This dialogue produced the following seven competencies: willingness to cooperate, self-discipline, initiative, willingness to learn, flexibility, personality, and character skills.

A much larger research study was performed by the Texas Advisory Council for Technical-Vocational Education of which Craven (1977) was a participant. She assisted in surveying 1,695 employers within that state and
asked them to rate the training and personal qualities they believed important for potential employees to possess. The employers in the survey stated that "young people must be taught a concern for productivity; proper work habits, attitudes, and grooming; the importance of being responsible and dependable; and a pride of craftsmanship and quality of work" (p. 32).

Another study interested in employers' perceptions of what constitutes a "good" employee was performed by Tolarzyk (1975) for the Ohio State Advisory Council of Vocational Education. It produced ten employee attributes that were quite similar to the study by Ellerbach (1977). From most important to least important, the affective work competencies were dependability, responsibility, pride of artisanship, willingness to work with others, good work habits, concern for productivity, and ability to follow suggestions.

The unique feature of Tolarzyk's study was that he found the smaller the firm, the more such competencies as pride in artisanship, quality of work, and concern for productivity were valued. Larger firms were chiefly interested in whether the applicant possessed the skills necessary for the job opening.

Porreca and Stallard (1975) validated a list of affective competencies that were perceived as common to the vocational areas of agriculture, business and office, distributive, home economics, and industrial education. The validation process included submitting the lists of affective competencies to groups of employers and employees from the respective occupational areas and submitting them to state level directors of vocational education to determine the degree of commonality.
This study utilized two separate samples. One was used to validate the affective domain competencies. It consisted of 191 persons randomly selected from the East Tennessee and Southwest Virginia areas. Of these 191 persons, 40 were employees in the various occupational areas, 51 were employers of vocational-technical graduates, and 100 were vocational teachers representing the five vocational service areas.

The second sample used to validate the affective competencies consisted of 48 state-level directors of vocational education. Porreca and Stallard (1975) used the Delphi technique with two probes. High correlations ($r = .48 - .70$) were found to exist between competency statements on Probe One with those on Probe Two.

The Research Coordinating Unit, within the Missouri State Department of Elementary and Secondary Education, has sponsored numerous projects which have contributed to and provided an impetus for the affective work competency literature. One of the earliest projects was conducted by the Current River Area Vocational School which surveyed employers in that geographical region (1973). This project produced a list containing 17 competencies, four of which were reported by both Johnson (1973) and Ellerbach (1977): dependability, cooperation, initiative, and willingness to learn.

Another study, funded by the Missouri Research Coordinating Unit, performed an extensive computer search which produced 59 affective work competencies deemed important by employers and educators (Kazanas, 1978). These competencies were then grouped into 15 clusters based upon similar characteristics.
To quantify these affective work competencies, the research coordinating unit within the Missouri State Department of Elementary and Secondary Education funded a project which produced an instrument titled the *Affective Work Competencies Inventory* (AWCI). The AWCI adhered to the argument social scientists make that to evaluate peoples' attitudes one must observe their behavior (Beach & Kazanas, 1981). The instrument was administered to a population of 9,000 composed of students, teachers, supervisors, and workers, and the results were validated using the Kuder Richardson 20 and the Spearman-Brown Split Half (statistical reliabilities exceeded 0.97).

When the Missouri Department of Manpower and Training wanted to develop modules based upon the AWCI, the instrument's reading level was lowered and the term "lab" was substituted for the term "job" so it would be more appropriate for students (Patey, 1980). In addition, the modules were illustrated so they became more comprehensible (Beach, 1979). These efforts evidently were beneficial because post-test results for disadvantaged youth participating in the program showed an increase in awareness of affective work competencies (Beach & Kazanas, 1981).

In another project funded by the Research Coordinating Unit within the Missouri State Department of Elementary and Secondary Education, Petty and Brauchle (1981), using a polynomial regression model, eliminated those variables that did not contribute significantly to the test variance. This resulted in the elimination of approximately 50% of the AWCI's items. Thus the revised instrument, *Work Attitudes Inventory (WAI)*, contained
the following five factors: ambition, self-control, organization, enthusiasm, and conscientiousness.

The above research is significant as it provided evidence that there are means available to vocational educators to assist students in attaining positive affective work competencies. However, the research is still subject to criticism from social scientists in that it assumes there is a strong correlation between attitude and behavior. The social psychological literature is inconsistent in its estimation of the relationship between attitudes and behaviors (estimates vary drastically), but the socio-psychological literature has generally estimated the relationship to be approximately .30-.50 (McGuire, 1985).

Nevertheless, vocational educators and social scientists would probably all agree that six decades of research and the formulation of countless theories show the process in which individuals adopt an attitude or change an attitude is a vastly complex one. In addition, the research indicates that there is insufficient evidence to advocate one procedure as the most effective in developing specific attitudes or attitude changes. However, research findings have suggested that in an educational environment some techniques might be more effective than others to assist students in attaining attitudes appropriate for the world of work. Nelson and Nies (1978) identified simulation, lecture, interviews, and group discussion, respectively, as the four major techniques used by vocational instructors to teach essential work skills. Consequently, it is now necessary to review the social scientists' evaluation of attitude and attitude change paradigms so that they can be compared with strategies employed by vocational educators.
Summary

The literature related to affective work competencies can be summarized as follows: (a) The absence of particular affective work competencies is a primary reason employees are terminated from their jobs. (b) Numerous studies have identified affective competencies that are critical for successful employment and the research has been amazingly consistent in identifying specific competencies as most important. (c) Two instruments, the AWCI and the WAI, are available to help quantify affective work competencies.

Attitude and Attitude Change Paradigms

Credibility-Attractiveness-Power Paradigm

The Credibility-Attractiveness-Power paradigm contained several strategies. The paradigm is important because it is applicable to all instructional techniques. It has recognized three characteristics that affect the degree to which an individual can be persuaded to adopt a given attitude. The first characteristic of this paradigm, credibility, requires the communicator, or in this instance the vocational teacher, to be perceived as competent, honest, and bias free by students. Thus, instructors must not only be experts in given occupational areas; they must also convey a knowledge about the labor market demonstrating that success in attaining and retaining employment is somewhat dependent on the internalization of a work ethic.
The second characteristic, the attractiveness variable, includes two components. The first component is that the more attractive the communicator (instructor) is, the more students are likely to be persuaded (attractiveness is not necessarily limited to physical characteristics, but also includes holding a good job, dressing nicely, etc.). Second, students must believe that if they internalize the proposed attitudes, they too can become more attractive. Thus, the rationale behind this variable suggests that students might adopt a more positive work attitude if they became convinced that youth with a good work attitude enjoy greater increases in annual earnings than do comparable youths who do not express such an attitude (Andrisani & Parnes, 1983).

The attractiveness variable also suggested that when behavior is rewarded externally it comes to be maintained at least partially by self-reinforcement (intrinsic rewards). Cherrington (1980) reported that those who feel pride in artisanship enjoy more job satisfaction and a better quality of life than those who lack this pride. He contended that desire for artisanship is a learned intrinsic reward. The ramification of this for vocational teachers is the need for them to show students that hard work in the laboratory is recognized along with academic performance. When a teacher does this, the student is more likely to internalize the desired attitude.

Like the attractiveness variable, the power variable also has two components. The first component recognized that more powerful (i.e., charismatic, effective) communicators are more influential. The second component suggested that it is just as important for students to believe
rewards and punishments are based as much on their performance in the laboratory as their academic performance in the classroom. From such a learning experience, students could learn of the relationship between power and competency within an organization (Hall, 1980). This, of course, assumes the laboratory tasks are appropriate and meaningful.

One could infer from the credibility-attractiveness-power paradigm that it requires an extraordinary teacher to have an influence on students. However, despite implications of this paradigm and the belief held by many teachers that they have little influence on students, Csikszentmihalyi and McCormick (1986) found that 58% of teenagers in their sample reported that one or more teachers influenced them to become the type of person they are.

**Contagion Theories**

Contagion theories such as modeling, social facilitation, and social learning, have emphasized that under certain circumstances receivers (students) will often imitate the behavior and adopt the attitude of the transmitter (teacher) (McGuire, 1985). Factors contributing to such a circumstance include: students must identify with and have respect for the teacher (here a teacher might use a guest speaker who is young and successful to maximize student identification); students need to perceive that the teacher has experienced rewards for having such attitudes; students must expect they will receive similar rewards if they internalize the attitudes.

Another paradigm dictated that for students to adopt a given behavior or attitude, they must first be attentive to it. Bandura, Blanchard, and Ritter
(1969) have shown that when subjects (students) role-play, their attitudes and behaviors are more affected than when they just passively observe. Role-playing, or simulation, is a technique that Zimbardo (1965) stated is the most useful for influencing attitudes. Though he conceded "... it has varied in operational use from a classroom debate to psychodrama," he argued that "... all the studies share the minimal requirement that the subject become involved in the attempt to render, sincerely and convincingly, the attitude position of another person" (p. 103). Zimbardo (1965) maintained that role-playing allows students to: (a) explore their feelings, (b) gain insights into their attitudes, values, and behaviors, (c) develop problem-solving skills and attitudes, and (d) explore subject matter in many different ways. In addition, Zimbardo (1965) argued that students who observe role-playing can experience attitude change or confirmation through discussion.

Zimbardo (1965) suggested that through role-playing the participant experiences the environment, constraints, and contingencies that the "real" role occupant does. As a result, participants can and often do adopt the attitude they espouse in the role. Zimbardo stated that there is sufficient data which show role players often change their attitude even when it is quite different from their original private attitude. Of course, such an experience would only take place if an external force, such as a teacher, required the subjects (students) to take a position different from their own. Obviously this could be challenging since individuals do not usually voluntarily expose themselves to situations or ideas different from their own (Festinger, 1957). However, a teacher does have an advantage since
repetitious contact does seem to alleviate some reluctance and assignments can be made with this as an intention.

Nelson and Nies (1978) suggested that role-playing or simulation is sometimes utilized by instructors because it can be applied in so many different situations. A job interview between employer and applicant, a discussion of some job related matter between supervisor and entry level employee, a discussion between worker's concerning some ethical matter, are just a few of the examples of role-playing. These examples of role-playing are ideal because they are applicable, feasible, and could have a motivating capacity.

A technique that is more frequently used than role-playing, but also has more risk, is group discussion. This strategy can provide rich learning experiences because each member can be exposed to several different perspectives (Anderson & Graessner, 1976). However, the utilization of group discussion presents somewhat of a paradoxical situation. If the teacher controls the direction of the discussion, it is more likely the desired attitudes will be expressed. However, when the discussion is controlled it is less likely students will be as free to participate and thus less likely they will internalize the discussed attitude. If the teacher exerts little or no control and direction the students are more likely to participate and internalize the discussed attitudes, but the attitudes could be the "wrong" ones. Clearly somewhere in the middle is the optimum practice.

Other risks of utilizing group discussion include polarization. For instance, if the group average concerning a specific attitude is positive before the discussion, it tends to grow more positive after the discussion. The
reverse is also true. If the average group attitude is negative, it becomes more negative following discussion (Anderson & Graessner, 1976). As a result, this technique seems most appropriate in the classroom when the teacher wants to strengthen an existing attitude instead of attempting to change one. However, this is not to suggest that if one or two members have a radical attitude that it will skew the group mean. On the contrary, data suggest that extreme views are regarded with skepticism unless they come from an extremely powerful source (Anderson & Graessner, 1976).

Despite these disadvantages of group discussion, it is by far the most recommended technique in the educational literature for teaching affective work competencies (Miller, 1985). Miller (1985) argued group discussion combines the dynamics of the democratic process with academic inquiry. Though Miller contended group discussion works best in an experience-based learning situation, she suggested that it can be easily transferable to real life situations.

**Summary**

In discussing some of the different techniques used by social psychologists, psychologists, and sociologists to study attitude change, it becomes apparent that social scientists have a difficult time controlling and manipulating variables associated with attitudes. This is true even in a laboratory setting. As a result, one could conclude that controlling and manipulating attitudinal variables would be an even more difficult task for the classroom teacher. Nevertheless, there does appear to be at least some correlation between the strategies Nelson and Nies (1978) reported that
vocational teachers use, and those strategies and techniques recognized by social scientists as being most effective.

The Interview

Overview

In his text, *Foundations of Behavioral Research*, Kerlinger (1986) stated:

The interview is probably man's oldest and most often used device for obtaining information. It has important qualities that objective tests and scales and behavioral observations do not possess. When used with a well-conceived schedule, an interview can obtain a great deal of information, is flexible and adaptable to individual situations, and can be used when no other method is possible or adequate. (p. 440)

Taylor and Bogdan (1984) also stated that the interview was much more flexible and adaptable than most ethnographic techniques and "objective" instruments. They argued that when researchers utilize the interview technique, the person being interviewed can assist greatly in interpreting the significance of particular variables. As a consequence, the study's objectivity can be increased. In addition, they stated that effective communication between the interviewer and the interviewee can reduce or eliminate any ambiguity, inconsistency, or insufficiency in the data that frequently hinder other methods of data collection. Because of these advantages, the interview technique seems to be highly regarded for particular types of data.

The literature recognized two primary forms of interviews
(Kerlinger, 1986; Stewart & Cash, 1985; Taylor & Bogdan, 1984). Though terminology varied, interviews were most frequently dichotomized as being either structured or unstructured. The structured interview is the favored technique when standardization is a high priority (Taylor & Bogdan, 1984). Standardization is accomplished when the interviewer asks all subjects the same questions, verbatim, and then maintains the same question sequence for every interview. This concern for standardization is also frequently applied to the introduction and conclusion of the study as well as in the repeating of a question. In these instances, the interviewer never deviates from the script so virtually every interviewee will have the same experience. In fact, the structured or scheduled interview Stewart and Cash (1985) described, was so rigid that it closely resembled Frey's (1983) example of a telephone survey. The structured interview is favored among quantitative researchers.

In contrast, the unstructured interview is flexible and open. Though the research still dictates the area of interest, the interviewer makes the decisions on what questions to ask, the wording of the questions, and the sequence of the questions. Kerlinger (1986) stated that a schedule is usually not utilized for the unstructured interview. Nonetheless, even though the unstructured interview is an "open situation," it is, or should be, just as carefully planned as the structured interview (Kerlinger, 1986; p. 441). The unstructured interview is favored among qualitative researchers.

Both the structured and the unstructured interview have their own strengths and limitations. Stewart and Cash (1985) stated that the unstructured interview is most applicable during an exploratory stage of
research. They maintained that a skillful interviewer can uncover inhibitors and facilitators of conversation, determine variability of responses, experiment with particular questions and their wording, and refine terminology. Thus the success of an unstructured interview is dependent in large part, on the skill of the interviewer.

Although interviewers who utilize a structured format still require some degree of training, they do not usually need to be as skilled as interviewers utilizing the unstructured format. In addition, because the structured interview format is fixed, it can be used to obtain uniform, precise, and reliable data. Thus, if there is a significant body of knowledge available about the research topic, the structured interview is the preferred technique.

**Kinds of Schedule Items**

Closed or, as Kerlinger (1986) labeled them, fixed-alternative items are questions that provide the respondent with a choice of answers. Frequently the alternatives provided to the respondent are "Yes", "No", and "Don't Know". Kerlinger stated that this type of schedule is often employed because of its ease to administer, record, and process. Though the closed items certainly achieve a high uniformity of measurement, and consequently high reliability, they are often criticized as being superficial. Kerlinger argued that closed items, by design, do not inquire deep enough into the respondent's attitudes. In addition, because closed items provide a group of limited answers, the interviewee might select a response and be ignorant of the issue or have an ideal answer that was not one of the choices.
Open-ended items are questions that provide the respondent with a frame of reference, but leave the type, length, and form of the answer to the discretion of the interviewee (Kerlinger, 1986). Miles and Huberman (1984) stated that open-ended items are indispensable in gaining insight into complex issues and topics. They stated that an open-ended item can explain a respondents choice when it follows a closed item question. Other advantages of open-ended items are that they are flexible, can obtain answers with a great deal of depth, and can clear up any ambiguity with the use of probing. Warwick and Lininger (1976) described probing "... as a device used to find out respondents' information on a subject, their frames of reference, or, more usually to clarify and ascertain reasons for responses given" (p. 210). They argued that a probe acquires more data without changing the original question. Warwick and Lininger (1976) provided such examples of probing as "'How is that?' "'Can you explain that?'" (p. 211). Open-ended items can also be used to promote cooperation and provide a clearer perception of the interviewee's attitudes and beliefs. Kerlinger (1986) suggested one of the biggest advantages of open-ended questions is that it is always possible that the respondent will provide an answer the interviewer does not expect. As a result, relationships and hypotheses can arise that were not originally a focus of the study.

Kerlinger (1986) described the funnel as a special kind of open-ended question. He identified two approaches to funneling. One approach began with a broad question followed by increasingly more specific questions. The other approach began with an open question followed by several closed questions. Regardless of the approach used, funneling allows the free
response of the open question technique but also the specificity of the closed
the closed question. As a result of this characteristic, Kerlinger stated that
funnel questions attain information about attitudes and specific practices.

The Behavioral Event Interview
The Behavioral Event Interview (BEI) was developed by Harvard
Professor David McClelland (1978) and colleagues at McBer and Company. It
is based on the Critical Incident Technique that was created by Flanagan
(1954). McClelland labeled his form of critical-incident interviewing
Behavioral Event Interviewing because it produced a detailed description of
several critical incidents the interviewee has experienced while on the job.
Through this technique not only are the respondents' behaviors recorded,
but also their thoughts and attitudes. Using journalistic inquiry, the
interviewer asks the respondents to describe incidents they felt effective on
the job and incidents in which they felt ineffective. As in the use of
traditional open questions, the interviewer utilizes probing and funneling to
acquire greater specificity and clarity. Though the BEI is usually recorded,
Boyatzis (1982) stated that the interviewer should still take notes to assist in
the interview coding process.

A major advantage of the BEI is that the interviewer gains access to
only those behaviors that are relevant to the study. This is in contrast to
participant observation where the researcher may observe a situation for a
long period of time and still not observe all the behaviors of interest.
Though BEI respondents may initially only discuss behaviors they believe
are critical, additional probing can reveal all relevant behaviors that
occurred in the situation or event. Klemp (1979) maintained that through the use of extensive probing, the interviewer can acquire behaviors that were actually performed in the event, rather than biased recollections of behaviors. Because of this need for extensive probing, Mentkowski, O'Brian, McEachern, and Fowler (1982) recommended using the BEI with a trained interviewer in a face-to-face situation, as opposed to asking a respondent to write the information on a mail survey. Boyatzis (1982) also encouraged the use of the BEI in face-to-face situations because it is easier to obtain more contextual information.

The BEI has been used in a wide range of environments. For instance, McBer has employed the BEI to study such industrial and government organizations as the U. S. Navy, the U. S. Department of Transportation, Mattel, and Monsanto (Boyatzis, 1982). Some studies which have utilized the BEI have conducted over 2,000 interviews (Boyatzis, 1982), while others have used fewer than 40 (see for example Huff, Lake, & Schaalman, 1982; Mentkowski et al., 1982). Thus, the diverse use of the BEI seems to support Kerlinger's (1986) assessment of the interview as being one of the most flexible of research methods.

Summary

Literature related to the interview as a research tool can be summarized as follows: (a) The interview is more flexible and adaptable than most other ethnographic techniques. (b) The interview may be structured or unstructured; however, the semi- or moderately structured interview possesses the advantages of both. (c) One interview schedule can
contain open-end, closed, scale, and behavioral event items. (d) Through the use of such techniques as "funneling" and "probing", the BEI can assist the interviewer in acquiring data about specific behaviors the interviewee performed.

Chapter Summary

The literature review has provided an outline for this study of affective work competencies. The first section explored the concept of the affective domain and why vocational educators deem it important. The second section examined research studies that identified and validated affective work competencies needed by vocational graduates to succeed in the world of work. In addition, this section discussed two instruments, the Affective Work Competencies Inventory (AWCI) and its revised version the Work Attitudes Inventory (WAI), that were developed to quantify affective work competencies. The third section was concerned with paradigms developed by social scientists that demonstrate the relationship attitude and attitude change have with particular treatments or variables. The final section reviewed various types of interview forms and discussed specifically the Behavioral Event Interview.
Chapter 3

RESEARCH METHODOLOGY

The purpose of this chapter is to describe the study design, sampling procedure, and instrumentation that was employed. The method of data collection and data analysis are also described.

The Population and Sample

The secondary vocational and technical centers represented in this study were selected using a systematic procedure. Directors from 12 selected Virginia area secondary vocational and technical centers were asked to nominate four or five trade and industrial teachers on their staff who they believed were successful in teaching work values and attitudes. Each center director was mailed a letter describing the study, a project summary, and a list of trade and industrial programs that are recognized by the Virginia Department of Vocational and Adult Education. Approximately 10 days after directors should have received the mailed correspondence, they were contacted by phone and were asked to participate in the study. Of the 13 secondary vocational and technical center directors contacted, 12 agreed to participate. The vocational principal who chose not to have his center participate in the study had two school evaluations for the school year and had a young faculty member die from a heart attack.

During the telephone contacts, participating directors nominated four or five trade and industrial teachers from their schools and gave permission
for the trade and industrial teachers to be interviewed. All of the 50 secondary trade and industrial teachers who were nominated agreed to be interviewed for the study. By asking each director to nominate four or five trade and industrial instructors from different occupational areas, the sample was not overrepresented by any given occupational area (i.e., cosmetology, printing, building trades). Vocational technical centers were chosen because they contain several trade and industrial programs as opposed to comprehensive high schools which frequently do not have any trade and industrial programs. Secondary schools were examined because the literature suggested that work values and attitudes instruction may be more appropriate at the secondary level than at the postsecondary level. The specific centers included in this study were selected based upon representation of the 12 geographical districts the Virginia Department of Education has recognized and whether the director agreed to participate in the study. District 11 was excluded because it does not have a vocational center which offers a least nine trade and industrial programs. Thus two schools from the same district contributed to the sample.

Research Design

Ary, Jacobs, and Razavieh (1985) stated that the purpose of descriptive research was to characterize a phenomenon as it exists at the time of the study. Since this study attempts to describe the behaviors and pedagogical techniques that selected trade and industrial instructors use to
teach affective work competencies, the descriptive research method was the appropriate design.

In quantitative research, extraneous and contextual variables are held constant or are eliminated whenever possible. In contrast, this study because of its qualitative nature, systematically identified and examined extraneous and contextual variables (Le Compte & Goetz, 1981).

To capture these variables the researcher elected to employ a moderately structured interview schedule. As discussed in Chapter 2, the interview has been used in many different forms and applications. Such an eclectic interview form was selected in an attempt to utilize the strengths and not the weaknesses of both the structured and non-structured interviews (Stewart & Cash, 1985).

Instrumentation

A four-part interview schedule was developed to obtain data for this study. Part I asked interviewees to describe characteristics they had which contributed to their success in teaching work values and attitudes. Part II asked the respondents to identify the work values and attitudes they taught to their students, and to provide an example of a pedagogical technique they used to teach each work value or attitude. Part III asked for such demographic information as teaching experience, industrial experience, educational attainment, trade and industrial area taught, gender, and age. Part IV asked the respondents to describe one event in which they believed
they were effective in teaching work values and attitudes to a student, a group of students, or an entire class.

Because this study selected a purposive sample, it has limited external validity or generalizability. However, like all scientific research, findings needed to be considered credible. Consequently, measures were employed to maximize external reliability, internal reliability, and internal validity. One such measure was the employment of a pilot study. The pilot study sample clearly demonstrated a need to clarify some of the interview questions and to change the interview schedule sequence. For example, when the interviewer asked the first three respondents to describe a behavioral event in the beginning of the interview, the respondents discussed unusual or infrequent incidents. However, when the other three respondents were asked to describe a behavioral event at the end of the interview, they described events which occurred frequently in their classes and laboratories. Thus based upon responses from pilot study participants, the interview schedule sequence was revised.

Data Collection Procedures

This study utilized the face-to-face interview technique to collect data. Kerlinger (1986) stated:

The best instrument available for sounding people’s behavior, future intentions, feelings, attitudes, and reason for behavior seems to be the interview coupled with an interview schedule that includes open-end, closed, and scale items. (p. 446)
In addition, Kerlinger listed many advantages that the face-to-face interview has over the self-administered questionnaire. First and foremost, the researcher does not have to worry about a low return rate when conducting face-to-face interviews. Second, open-end questions, which can provide rich information, are much more appropriate for face-to-face interviews than they are for mailed questionnaires because many people cannot express themselves well in writing. Third, with the aid of probing questions, the face-to-face interview is much more capable of exploring in depth specific areas of concern. And fourth, when conducted by a trained interviewer, the face-to-face interview can be flexible enough so as to adjust to differences in subjects.

Some of the face-to-face interview's strengths are also its weaknesses. Though the face-to-face interview's directness insures a response, it may also place respondents in a position of wanting to provide incorrect information. For example, Kerlinger (1986) warned that interviewees have a tendency to answer questions the way in which they perceive the interviewer wants them to. He suggested this behavior is not limited to but becomes more prevalent when the questions concern such sensitive areas as sexual relations, income, and attitudes toward religion and minority groups.

In addition, the face-to-face interview is not one of the most economical forms of data collection. Interviews often take one to two hours and interviewers may be required to travel to different geographical areas to obtain interviews from desired respondents. Thus, it is clear that the face-to-face interview requires time, money, and effort.
The instructors were contacted by telephone and asked to participate in the study. Once consent was acquired, the interview session was scheduled. A letter that explained the study in more detail and a project summary were then sent to the instructors. In addition to reminding instructors of the interview date and time in the letter, secretaries of the selected area vocational and technical centers were contacted one day prior to the interviews and asked to remind instructors about the scheduled interviews by placing notes in their mail boxes. Only one subject missed the scheduled interview. This subject contacted the researcher and was quite apologetic for forgetting the interview. Because of the distance (200 miles), a telephone interview was then arranged for this subject. Data collected from this interview was comparable to the data collected from the face-to-face interviews. Consequently, it was determined that data from this interview should be included even though it was collected over the telephone.

The specific interview locations varied. While all instructors were interviewed at their respective area vocational and technical centers, some of the interviews were conducted in instructors' offices, some in the center's conference room, some in the program's laboratory or shop, and one in a house that was being built by students in the carpentry and electricity programs. In addition, while the majority of the interviews were conducted at times in which the instructors did not have students (i.e., before school, after school, during lunch, or during a preparation period), some were conducted while the students were engaged in tasks in the centers'
laboratories or shops. One instructor brought the researcher a lunch because the interview was conducted during his lunch break.

With the exception of one interview, interviews that were conducted when the students were present were conducted in the instructors' offices. The exception was an interview conducted with a culinary arts instructor. This interview was conducted in the program's kitchen while the students were preparing lunch. All the offices where interviews were conducted had large areas of fixed glass so that instructors could observe their students while the interview was being conducted.

The interview sessions were designed to last approximately 45 minutes. However, interviews actually ranged in length from 30 minutes to one and one half hour. In addition, the researcher was frequently given a tour of the centers' facilities or given a tour of a specific project (e.g., a house being built by students).

Data Analysis

This section describes the procedures utilized to analyze data collected from the interviews. Miles and Huberman (1984) suggested that "... qualitative analysis consists of three concurrent flows of activity: data reduction, data display, and conclusion-drawing/verification" (p. 23). Thus, analysis is not necessarily a phase of the study to be implemented following the interviews. Rather this study adhered to Lofland and Lofland's (1984) suggestion to interview and analyze the interviews concurrently. Miles and Huberman (1984) advocated analysis during data collection because they
contended it allows interviewers to improve their craft. Through the use of such a concurrent scheme, the study was able to formulate some kind of thematic structure for the final text from the collection of descriptions and behavioral events. This was accomplished by performing a write-up for each behavioral event (Part IV of the interview schedule) shortly following each trade and industrial teacher interview. Not only did the write-up format separate thoughts and feelings from behaviors, but it also assisted in identifying the pedagogical techniques that a specific teacher employed.

Concurrent analysis was also utilized with Part II of the interview schedule (identification of work values and attitudes and examples of how they are taught). For example, a building trades instructor reported teaching perseverance by having a student perform a given task over and over again until the outcome met specific standards. During the write-up, the researcher categorized this pedagogical technique as teaching a work value or attitude incidentally with cognitive or psychomotor skills. Another example was a cosmetology instructor described an activity in which a student pretended to be a customer and another student pretended to be a hair stylist and they interacted. In this instance, the researcher identified the activity as role-playing.

Although concurrent analysis was used extensively in this study, there was also an analysis phase following the completion of the interviews. During this phase some of the qualitative data was "quantified". For example, the frequency of specific pedagogical techniques employed by specific occupational areas were determined. From this analysis a hypothesis was formulated that one occupational area used group discussion
quite frequently while another occupational area used group discussion much less frequently. Similarly, pedagogical techniques identified by instructors were categorized as being democratic, indoctrinational, or incidental. The relationship between a given occupational area and the frequency of a pedagogical "type" were then examined.

Because of this study's qualitative nature, the interviews produced over two hundred pages of notes. Consequently, there was a concern of producing a data overload. To avoid this problem, the interviewer coded each interview shortly after it was conducted. Work values and attitudes that instructors listed and pedagogical techniques employed by the instructors to teach work values and attitudes were then coded based upon categories established in the literature.

Concurrent analysis enabled the researcher to break the data into manageable chunks. HyperQual, a qualitative microcomputer software program, was used to assist in this process. HyperQual is a HyperCard based application. It facilitated the recording and analysis of data by enabling the researcher to produce electronic note cards. Through the use of electronic note cards, code names were assigned to parts of data so that themes were extracted to tell a story. HyperQual is designed specifically to use with interview data and with observational data or document analysis. It should be emphasized that segments of text can be coded more than one way so that they can belong to more than one classification scheme. This feature is critical because unexpected categories, themes, and concepts may emerge that strongly influence the filing structure.
The filing structure included categories such as mundane and analytic that C. Wright Mills recommended in his "On Intellectual Craftsmanship" (1959). By having data from recorded interviews entered on the computer, several copies of a given interview, or parts of a given interview, were easily placed in more than one file. The researcher utilized a microcomputer for the analysis of data.

Lofland and Lofland (1984) stated that some of these files would be well developed while others would be little more than one or two observations, and consequently, could never get developed. Lofland and Lofland also made the point that the size of each file influences a given structure as much as the goal for phenomenological and sociological coherence. Thus, while the interview schedule dictated to some degree the structure of the text (i.e., work values and attitudes, teacher characteristics, pedagogical techniques, and behavioral events), the researcher utilized, where possible, Mill's (1959) and Lofland and Lofland's (1984) recommendations.

Another recommendation that was prominent in the literature was to write freely and frequently. Lofland and Lofland (1984) warned that if researchers are overly concerned with organization, it could block their writing. To avoid writer's block they recommended (a) taking good notes during the interview (even if it is recorded), (b) spending at least an hour after every interview for a quick write-up, and (c) brainstorming on paper or the computer screen when contemplating the study. Lofland and Lofland (1984) maintained that when such practices are followed, the data dictate
the structure instead of allowing a predetermined structure to force the data into an unnatural text.

McClelland (1978) agreed with Lofland and Lofland (1984) in that he suggested spending an hour after each interview summarizing what was learned. However, McClelland also suggested allotting some time towards a brief characterization of the interviewee. This practice, he maintained, assists the researcher in formulating hypotheses that can be explored more in later interviews. Miles and Huberman (1984) emphasized that the summary or the write-up should be rewritten several times so that it slowly evolves into a piece of text.

Lofland and Lofland (1984) stated "penetrating and useful qualitative analysis has the feature of striking a balance between abstract and general concepts on the one hand and quotations from a setting's participants on the other hand" (p. 128). By utilizing a behavioral event in the interview schedule, it was possible for this study to attain such a balance. Through the interviewee's description of a specific incident, rich descriptions of the context of the incident and "quotable" remarks became a major part of the text. However, by using an overlapping filing scheme and explaining the rationale behind a given file, the study was forced to be analytical to some extent and thus avoided being excessively descriptive.

The described procedures produced a text but certainly not a finished text. As more time passed after the last interview had been conducted, needed changes in the arrangement of concepts and illustrations became evident. Rearrangement thus was not only necessary in the filing system.
and in the materials within the files, but also in the preliminary drafts of the text.

In all fields that have engaged in scientific inquiry, reliability and validity of findings have been important. A frequent criticism of qualitative research has been that it is inferior to quantitative research in meeting validity and reliability standards (Reichardt & Cook, 1979). Attaining absolute validity and reliability have been impossible goals for any research model. Nevertheless, by having conscientiously implemented the following measures, this study should have increased its credibility.

First, by having asked trade and industrial instructors to state the work values and attitudes they taught, as opposed to having asked them to rate the frequency in which they taught specific work values and attitudes on a provided list, the data came closer to representing reality (Spradly, 1979). Similarly, having asked trade and industrial teachers to provide an example of how they taught each work value and attitude, as opposed to having provided a specified list of pedagogical techniques and asking them to rate the frequency in which they used a particular technique to teach that specific skill, also enabled the data to more closely approximate reality. Though respondent credibility can become a matter of perspective, respondents whose information was validated independently by other sources were assumed to be more credible. By having asked vocational and technical school administrators to nominate the trade and industrial instructors who they perceived as being successful in teaching work values and attitudes, some degree of triangulation was achieved.
Chapter Summary

In discussing the qualitative aspects of this study, this chapter examined the advantages and the disadvantages of the face-to-face interview. The sample, design, instrumentation, data collection procedures, and data analysis of the study were also discussed.
Chapter 4

FINDINGS

Chapter three explained the sampling procedure, research design, instrumentation, data collection, and strategy for data analysis. The purpose of this chapter is to report findings relative to the research questions posed by this study.

The primary objectives of this study were to identify the work attitudes and values that secondary trade and industrial instructors teach and to describe the pedagogical techniques they use to teach them. Another objective was to determine whether work values and attitudes are taught incidentally with cognitive and psychomotor skills, or whether instructors prepare specific learning activities to teach work values and attitudes. More specifically, the research questions associated with this study were:

1. What types of work values and attitudes do secondary trade and industrial instructors, who have been identified as successful, teach to their students?

2. To what extent are the work values and attitudes taught by successful trade and industrial instructors similar to those work values and attitudes reported in the literature as being most important?

3. What pedagogical techniques do these teachers use to teach work values and attitudes?
4. To what extent do teachers design specific learning experiences to teach work values and attitudes or do they teach work values and attitudes incidentally with cognitive and psychomotor skills?

5. To what extent are pedagogical techniques that secondary trade and industrial instructors use to teach work values and attitudes democratic or indoctrinational?

Findings relevant to these questions are presented in this chapter. First a descriptive analysis of the sample is given. Then the analysis of data and answers to research questions are presented.

Descriptive Analysis of the Sample

Principals of the participating secondary area vocational and technical centers were asked why they nominated certain trade and industrial instructors. The principals generally stated that these instructors were good and representative of their schools. Many of the principals said that had they been asked to nominate six or even eight instructors, it would not have created a problem. Thus, most of the administrators seemed to suggest that there was nothing especially unique or different about the instructors they nominated compared to those instructors they elected not to nominate. Thus the study does not contend the nominated teachers are necessarily the best work value and attitudes instructors, but it does recognize that administrators would tend to avoid nominating unsuccessful instructors.

When the instructors were asked why they thought their administrators nominated them, several instructors replied they didn't know
because they were no different or "better" than any of the instructors who were not nominated. In fact, some instructors stated they were selected because of their long tenure rather than an exceptional performance. Nevertheless, the vast majority of the instructors indicated that they believed they were nominated because their principals perceived them to be competent, professional, knowledgeable about what industry wants in employees, and concerned about their students. Some instructors suggested that a high placement rate and winners in state and national competition could also have been factors in their selection.

Description of Instructors

The sample consisted of 41 males and nine females (see Table 1). The female subjects were all cosmetology instructors. Thus, the sample did not include any nontraditional instructors. The commercial foods instructor and the culinary arts instructor were both males. Instructors ranged in age from 27 to 64 years old; the mean age of the sample was 47.5. The instructors' teaching experience ranged from two years to 36 years with a mean number of years for instructors' teaching experience being 14.28. The instructors' industrial experience was quite similar to their teaching experience. The range was from two to 35 years and the mean industrial experience was 14.38 years. Educational attainment varied among the instructors. Four percent of the instructors only had a high school education. Fifty-two percent of the instructors had some college hours. Eight percent of the instructors had an associate's degree. Twenty-six percent of the
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instructors had a bachelor's degree. And, six percent of the instructors had master's degrees. Generally, the electronics instructors had the highest educational attainment. All the cosmetology and electricity instructors had licenses. In addition, many of the instructors had passed state or national examinations to become certified in their respective occupational areas.

Results Relative to Question 1

The first research question asked: What types of work values do secondary trade and industrial instructors, who have been identified as successful, teach to their students? The researcher used the Affective Work Competencies Inventory (AWCI) (Kazanas, 1978) to categorize work values and attitudes identified by the instructors (see Table 2). The AWCI is an inventory of 95 indicators that describe 15 different affective work competency clusters. Kazanas (1978) developed the AWCI after conducting an exhaustive review of the literature. The AWCI contains a total 63 affective work competencies identified by employees, employers, vocational educators, and vocational graduates. A panel of experts consisting of vocational educators, organizational behavior specialists and managers grouped the competencies into 15 clusters that describe similar behavior. Because of this extensive research and because the AWCI has been validated
and found to be reliable, the AWCI was selected for use as this study’s coding scheme. However, for the purposes of this study it was necessary to add a category for citizenship. Although it is recognized that this value or attitude may not necessarily be a competency essential for the employment of vocational graduates, it was mentioned by several of the instructors. As a result, the following coding scheme was used to categorize work values and attitudes identified by the instructors.

1. Ambitious - showing great effort; aspiring--demonstrating strong desire to success or to achieve something.

2. Cooperative/Helpful - willing to work with and/or give assistance to others.

3. Adaptable-Resourceful - able to deal promptly and effectively with problems, difficulties, etc.; able to change without difficulty so as to conform to new or changed circumstances.


5. Accurate/Quality of Work - free from errors and mistakes; precise and exact; displaying a degree of excellence.

6. Pleasant/Friendly/Cheerful - neighborly; marked by pleasing behavior; good spirits and hope.

7. Follow Directions/Responsive - to act in accordance with or react readily to suggestions, instructions or regulations.


9. Considerate/Courteous - having or showing regard and/or concern for others and their feelings; good manners.
10. Emotionally Stable/Judgmental/ Poised - not easily aroused by emotion; good sense, understanding.

11. Persevering/Patient/Enduring/Tolerant - persistent in effort or purpose; uncomplaining.

12. Neat/Orderly/Personal Appearance/ Manner- tidy, clean, well-arranged.

13. Dependable/Reliable/Responsible - trustworthy

14. Efficient/Quantity or Work/Achieving/Speedy - being productive with a minimum amount of time; swiftness.

15. Dedicated/Devoted/Honest/Loyal/Conscientious- to give or apply attention or time to some activity or purpose; acting honorably and justly.

16. Citizenship- a responsibility or contribution to the community.

For the most part, work values and attitudes identified by the instructors were easily coded into the AWCl's affective clusters. Frequently, instructors used the same terms utilized in the AWCl. And, often when the specific category labels were not used, instructors would use terms synonymous with the category labels.

This is not to suggest that all the values were easily coded. Some of the instructors identified problem-solving as a value that they teach. From the examples the instructors cited, it became evident that they frequently were referring to two different competency clusters, Adaptable/Resourceful and Independent/Initiative. A decision was made to code the value based upon each specific example the instructors provided. Thus at times problem-solving was assigned two codes, Adaptable/Resourceful and Independent/Initiative, while at other times only one code was assigned to
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**Note.** The above percentages reflect the percentage of instructors that reported a given value or attitude. For example, 82% of the instructors identified "ambitious" as a work value or attitude they taught. Each subject might have identified or referred to "ambitious" several times.
it. Nevertheless, it should be pointed out that while a specific affective competency might have been mentioned and discussed several times in a given interview, for the purposes of this study, it was counted only once.

The following section contains descriptions of the work values and attitudes that surfaced from the instructor interviews. The affective clusters are presented from most identified to least identified. As Lofland and Lofland (1984) stated files, or in this case clusters, become better developed with more data.

**Dependable/Punctual/Reliable/Responsible.** This affective cluster was mentioned by 88% of the instructors (see Table 2). In addition, Dependable/Punctual/Reliable/Responsible often surfaced many times in the same interview. As a result, it seemed that instructors felt that Dependable/Punctual/Reliable/Responsible was most important, and they tried to help students acquire this value. However, an intervening variable surfaced in numerous interviews. It was discovered that most of the area vocational and technical centers had established policies for punctuality and attendance. Thus instructors had little flexibility in deciding how to treat students' absences and tardies. Some area centers had a formula established for teachers to use in assigning grades that penalized students for absenteeism and tardiness. Nevertheless, the vast majority of the instructors stated that they would employ such a grading system even if the school did not require them to do so. One cosmetology instructor explained:
"This county has a strict attendance policy. I enforce it because of the state's certification requirements for cosmetology students."

A printing instructor said:

"Our school has a grading system which penalizes students for unexcused tardies and absences. All the teachers are expected to follow this policy. However, I tell the students that the school policy is more lenient than industry's because we can't fire students."

Instructors expressed the belief that the lack of this value would get an employee fired more quickly than anything else. The instructors felt it was their responsibility to make students aware of this.

"There is a company in this area that has hired several of this program's graduates. The company starts its employees at top wages, but it also fires employees quickly if they can't show regularly to work. The company won't even consider a graduate if he had as much as five unexcused absences in one year. I inform the students of this company's policy and share with them that this policy is common in industry."
Though these instructors were expected to follow their school's policy, many of the instructors took actions that went beyond what the school dictated. Many of the instructors called or wrote to the students' parents about absences and tardies. If this action did not solve the problem, some of the instructors would even take further measures.

"I finally visited the student at the apartment that he lived in with his brothers, sisters, and mother. I asked him what his plans were. I asked him what he wanted out of life. I told him I didn't get the nice clothes I wear or the nice car that I drive by doing nothing. I told him his chances for success were slim to none if he continued on the path he was on. I told him that I could help him but that he had to start coming to school and putting forth some effort."

Though examples of attendance and punctuality dominated the examples in this affective cluster, instructors also discussed attempts to make students more dependable and reliable in other areas. Many instructors indicated that they used check-off sheets to help students become more methodical. Instructors believed that when students adopt a methodical approach to their work, they become more dependable. The instructors suggested that using checklists also enabled them to monitor students' assigned responsibilities.

**Dedicated/Devoted/Honest/Loyal/Conscientious.** Most instructors stated that they taught this affective cluster (86%). However,
many instructors also implied that this value was one of the most difficult to be successful at teaching. The instructors frequently suggested that most of their program graduates who were Dedicated/Honest/Conscientious, were that way before entering their program. Instructors provided numerous examples of demonstrations they gave to students on how to produce a quality product, but the instructors would frequently add that students ultimately had to become their own quality controllers. In addition, when the instructors did observe that a student became more dedicated or conscientious while enrolled in their program, they usually contributed the change to an interest the student developed for the occupational area rather than something they did for the student. Thus, instructors tended to be conservative about the impact they might have had on a student's dedication. The following example, in which a machine trades instructor reflected on the remarkable turn around he witnessed in a student who had been convicted on selling drugs, exemplifies this phenomenon.

"After the student spent time in jail, I think he realized the hazards of that kind of lifestyle. I think the young man realized that he wanted a good income, and he wanted it legally. I also think the student came to the conclusion that since the judge was making him come to this program, he might as well get the most out of it. The student knew he was good at machine trades, and he was aware of the good money he could make in it."
The examples concerned with honesty that surfaced, were quite different in nature. Some of the examples reflected a policy expressed by many of the instructors which was that if students would come forward and be honest about their mistakes and moments of poor judgement, the consequences of their actions would be much less severe. However, many of the teachers also said that while they taught honesty, they were amazed at how honest the majority of their students are. The instructors provided numerous examples of students telling them about illegal behaviors the students engaged in over the weekend. Some of the instructors also contended that cheating was not a serious problem because most of their students were not so concerned about their academic performance to take the risk that cheating required.

Ambitious. Ambitious was one of the most frequently identified work attitudes (82%). Through the interviews it became obvious that instructors not only identified ambitious because they thought it was essential for success in the world of work, but also felt they had to address ambition because so many of their students seemed to lack it. As one instructor stated.

"A lot of my students are counseled into this program because they are not academically motivated. Thus, I have to show the students that what they learn in this program is relevant. I have to convince my students that there are rewards for those who succeed in auto mechanics."
Many behavioral events referred to students who lacked ambition. However, when the instructors shared a success story, they emphasized students' interest in the occupational area rather than their roles as teachers. As one building trades instructor explained:

"The student found out that he loved to build things. He then saw the relevancy of math. The student became motivated to learn as much as he could about building."

An air conditioning and refrigeration instructor, who taught in an area where there was a shortage of labor, suggested that it was much easier for him to assist students in becoming ambitious because the rewards were so visible.

"I provide proof to my students that ambition does pay off. Last year the lowest paid graduate of my program started at $7.40 per hour. The highest paid graduate started at $10.40 per hour. I also allow my successful students to start work in April. This serves as another incentive for high performance."

However, motivating students or helping students to become ambitious can be quite challenging. As one plumbing instructor stated.
"The second day of class, I made all the students stand and tell me and the rest of the class why they chose to enroll in plumbing. This one student said that his father made him. About a week later I asked this student what he thought of the program and the student said that he definitely did not want to be a plumber. I told the student to hang in there that things could improve. I decided then to give the students more options on what they could do on a given day. I asked this student to find something that he wanted to do. The student did and I then worked individually with him. This student became motivated and ended up winning the state VICA competition in plumbing."

Cooperative/Helpful. Many instructors said they taught "getting along with others". Instructors referred to the need for an employee to get along with employers, customers, and fellow employees. The instructors suggested that while they might tolerate students who lack independence or resourcefulness, these trade and industrial instructors indicated they would not tolerate uncooperative behavior for a long period of time. The following example is representative of the instructor's philosophy.

"At first I accepted this student's uncooperative behavior as just a part of him being an immature tenth grader. I tried to work with him to improve his behavior. However, he began having a negative impact on the class and was demanding too much of my attention. That's where I draw the line--when a student's behavior interferes with the
learning of other students. I have to think of the majority’s best interests.”

Surprisingly most of the time when Cooperative/Helpful surfaced in an event, the instructors referred to interaction among students as opposed to interaction between themselves and students. Thus, instructors saw being cooperative as a great deal more than the absence of disruptive behavior. In talking about this work value, instructors referred to team work and team building a great deal.

Neat/Orderly/Appearance. When instructors talked about this value or attitude they referred to the appearance of students, the appearance of students’ work, and to the appearance of students’ work stations. As one might suspect, cosmetology instructors primarily provided examples of students’ personal appearance. A common theme contained in these examples was that customers expect cosmetologists to have a nice appearance. However, instructors did point out that “nice” appearance is rather subjective. As one cosmetology instructor stated:

“The girls do experiment with hair styles in this program. Some people would consider some of the hairstyles too far out. However, these hairstyles are in very much demand by today’s teenagers. Nevertheless, if a girl wanted to work in a salon that had a lot of older customers, she would need to have a more classic or conservative hair style.”

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While only the cosmetology instructors actually evaluated students on personal appearance, the majority of the instructors indicated that they evaluated students on the neatness of their work and how orderly and clean the students kept their work stations. One auto body instructor explained:

"I think my students think I'm being a slave driver when I make them clean up as extensively as I do. However, I feel like I have to get them to realize the importance of a clean shop. I have seen instances where a paint job has been ruined by a dirty booth. I feel obligated to get this point across to the students."

Trade and industrial instructors recognized the relationship Neat/Orderly/Personal Appearance has to success in the world of work and they tried to get this message to the students. One air conditioning and refrigeration instructor stated.

"I posted a copy of a letter from an employer which states that he receives compliments on one of this program's graduates from customers because he is so neat and clean. The letter said that the employee is frequently given raises because of his performance."

**Accurate/Quality of Work.** A frequent theme expressed by the trade and industrial instructors was that their program area provided an opportunity for students to experience pride in their work. Most of the
instructors indicated that they teach and evaluate the students' quality of work. A welding instructor said:

"I tell the students that their name is on their work. The students are graded on the work they do. I grade them according to industry's standards."

Through examples the instructors gave, it became evident that trade and industrial students are frequently involved in tasks where accuracy and quality are critical. Many of the trade and industrial instructors shared that their programs performed work for the public. One auto mechanics instructor stated:

"We do a lot of live work in this program. I try to get the students to act as though each car they work on is their own. The students learn through doing live work that the public demands and appreciates quality work."

**Independent/Initiative.** Instructors asserted that self-confidence was essential to the value independent/Initiative. As a result, this value surfaced most often when the instructors talked about learning experiences they had designed to help build the confidence of their students. These trade and industrial teachers encountered many students who initially were reluctant to put forth any effort. However, the instructors seldom blamed this phenomenon on a laziness on the part of the students. The instructors
contended that many of their students had experienced failure and thus lacked the confidence in themselves to take the initiative. In fact, many of the instructors argued that poor teaching and parenting were more to blame for students lacking initiative than the students themselves. One cosmetology instructor stated:

"I had a majority of students in one class that lacked the self-confidence needed for them to take the initiative. They were almost afraid to do anything unless I held them by the hand. From a group discussion with the students, I learned that some of their parents and teachers told them things like 'oh you never do anything right' or 'I could have expected that from you'."

The instructors asserted that many of their students, who are learning disabled, handicapped, or economically disadvantaged, needed help in building their self-confidence before they could become independent and take initiative.

**Follow Directions/Responsive.** Though about one half of the instructors identified Follow Directions/Responsive as a value that they taught, this affective cluster seldom surfaced through the behavioral events. Most of the instructors stated that they emphasized following directions at the beginning of each school year and then taught it intermittently throughout the school year.
During the orientation period, a few instructors stated that they gave "tests" to their students to stress the importance of following directions. These tests were designed so that students who read the directions did not have to complete all the questions. Instructors reported that these tests helped some students realize the importance of reading directions. Many of the instructors argued that following directions was important for their students because technicians in their occupational areas have to follow manuals. For example one auto mechanics instructor said:

"Automotive mechanics have to read manuals constantly. As a result I have to make sure that my students can read and follow directions."

**Careful/Safe.** About 50% of the instructors included Careful/Safe in their list of work values and attitudes they said they taught. It is suspected that this work attitude was underreported because all trade and industrial instructors in the state of Virginia are required to include safety instruction. In addition, the researcher observed students following safety procedures, safety rules and posters displayed, and safety equipment operated. One explanation for this discrepancy is that it is possible many of the instructors perceived safety as belonging more to the cognitive or psychomotor domain and thus did not think to include this affective cluster in their discussions. It seems likely that many of the instructors did teach safety because as one building trades instructor said:
"I teach safety every day. I have to in my occupational area because of the potential of an accident. In fact, my students accuse me of over teaching safety. I welcome such criticism because I know the students are less likely to get hurt, and I'm less likely to get sued."

**Considerate/Courteous.** The data reflecting this affective cluster resembled the Pleasant/Friendly/Cheerful cluster. Cosmetology instructors provided the majority of the examples and Considerate/Courteous frequently surfaced in behavioral events with Pleasant/Friendly/Cheerful. In fact, because of the similarities between these two affective clusters, it was difficult to decide which code to select when labeling certain examples. For example one cosmetology instructor said:

"I run this cosmetology program similar to a hair salon. We are open to the public certain times during the week. Though this makes my job tougher, working with the public is essential to the students learning the importance of being pleasant and courteous to customers."

Some instructors mentioned the need for respect when they discussed Considerate/Courteous. The belief expressed by these instructors seemed to be that students had to respect the teacher and themselves before they would consistently engage in behavior reflecting Considerate/Courteous. One welding instructor said:
"Students have to have respect for you before they give you consideration. I earn their respect by showing them respect. I treat them like young men. I don't fly off the handle at them and they usually don't at me. I get to know the students on an individual basis."

_Pleasant/Friendly/Cheerful._ The vast majority of the events in which this value surfaced were provided by cosmetology instructors. As indicated earlier, the genders of the instructors are traditional in relation to the occupational areas that they teach. Thus, it is impossible to determine whether differences that arose were due to the gender of the instructors, occupational areas taught, or a function of both. However, because cosmetologists are required to be in constant contact with the public, cosmetology can be categorized as a "persons" occupation. In contrast, such craftpersons as welders and automotive technicians may work in relative isolation on a given day so they can be categorized as a "things" occupation. Thus it seems reasonable that this difference in reporting could be indicative of the occupational areas.

One cosmetology instructor, who had taught at a private postsecondary school for a number of years, noted the importance of teaching Pleasant/Friendly/Cheerful.

"It took me two years of working with secondary students to realize that by emphasizing only cognitive and psychomotor skills, I was missing the boat. After I started working with my students in
becoming more pleasant and polite, the public customers and the salon owners who hired program graduates began commenting much more positively on the students' performance."

The trade and industrial instructors who were not cosmetology instructors and who mentioned this value indicated that a positive attitude was important. The instructors seemed to suggest that being upbeat and enthusiastic were particularly important in teaching at-risk students. One instructor vocalized this belief.

"I try not to bring my problems to school with me for several reasons. First, some of my problems are pretty insignificant when compared to some of my students' problems. Second, I try to be pleasant because the students respond better to me when I am. Third, the work place expects its employees to leave their family problems at home and the students need to be aware of this."

**Efficient/Quantity of Work/Achieving/Speedy.** Less than one third of the instructors reported teaching this affective cluster. And, the instructors that indicated they taught Efficient/Speedy said they did not emphasize it. The instructors stressed that they taught students for entry level positions. The instructors expressed the belief that quality precedes quantity. One auto body instructor explained:
"I have this shop set up like a real auto body shop. I have the students keep track of their labor and the materials we use on a particular car. We then compare our labor and materials to a predetermined estimate. Of course, the students are learning and I expect them to take considerably longer than professionals to get a quality job. However, at least the students become aware of what industry expects."

A building trades instructor said:

"I am not overly concerned if a graduate of this program is not a very fast builder. He will get speed in time, but first he has to get good."

**Persevering/Patient/Enduring/Tolerant.** Though this value did not surface a great deal (24%), when it did surface the examples frequently referred to the short attention span that some students seem to have. In fact, several instructors joked that they had to work on their own patience so that they could deal with students' short attention span and slow progress. The instructors also suggested this value is one students learn gradually, not immediately. One subject said:

"I did not try to change this student all at once. I felt that I should gradually attempt to increase the time this student could stay on task. I had to be extremely patient with this student."
Several instructors also stated that they intentionally required a student or a group of students to always finish the project that was assigned to them. For instance, these teachers don't let afternoon students work on a project started by morning students. One automotive mechanics instructor explained this policy.

"I used to allow students from my afternoon class to finish repairing a car that students in the morning class started. It took pressure from me because the customers got their car back sooner. However, it also took away the sense of accomplishment from the students who initially started the repair. In mechanic work one has be patient because the solution to a problem is not always readily identifiable. So now I always require the students to work on a car from start to finish. This practice also makes it easier on me to monitor the students' work."

**Emotionally Stable.** Instructors emphasized that their behavior had a strong effect on the emotional stability of their students. A common theme that surfaced from the interviews was that instructors teach many students who have serious home and school problems. The behavioral events contained numerous examples of students who were on drugs and/or alcohol, students who had abusive or unconcerned parent(s), students involved in crime, and students who became pregnant or had abortions. The following examples are common experiences for secondary trade and industrial teachers.
"I get a lot of at-risk students in my program. This one student I had came from a very poor environment, but he was exceptionally bright. However, he was emotionally unstable. The student was out of school and received psychiatric care for eight weeks. When he came back to school, he just took this program and enrolled in the GED program."

"This particular student was having a lot of trouble at home and his home school. He was emotionally unstable. In fact, he had to be committed to a mental hospital. The student fought with his dad. He had taken a baseball bat to his ex-girlfriend's new boy friend. He ran over his mother with a car."

Several cosmetology instructors suggested that teenagers tend to be emotional.

"The girls that enroll in this program are at the age that some of them are very emotional. There are a lot of things happening in their lives, and they are in the transitional period of becoming women. I have to work with the girls so that they can learn how to control their emotions and maintain good relations with customers."

**Citizenship.** A small group of the instructors (20%) stated they taught citizenship. Most of the examples of teaching this value referred to
community service projects performed by the programs' Vocational Industrial Clubs of America (VICA). The following example provided by a cosmetology instructor is representative of what the instructors reported.

"Last year I gave every student five invitations that they could give to someone to get a free haircut. The only condition was that the customer had to bring in two cans of staple foods. The students raised over 500 pounds of food to give to the shelter for battered women. At Christmas time we asked for people to donate their old Readers' Digests. We painted these magazines and turned them into Christmas trees. The students and I then donated these trees to the elder care."

**Adaptable/Resourceful.** The affective competency cluster, Adaptable/Resourceful, surfaced the least number of times of all the work values and attitudes. In addition, the few events that did surface were provided by electronics and automotive mechanics. Thus the problem-solving nature of these occupational areas may dictate the teaching of this attitude. One auto mechanics instructor explained.

"We do a great deal of live work in this program. We work on school employees' cars, students' cars, and even the public's cars. The majority of these cars are brought to us because they have a problem. My role as a teacher dictates that I help the students solve the problems, but that I don't solve the problems for them."
An electronics instructor voiced a similar philosophy.

"The second year students in this program do a great deal of lab work. A major part of lab work consists of repairing electronic items. Instead of telling the students what they should do to repair these items, I ask the students questions to guide them. By doing this, I let the students solve the problems."

Though it is recognized that instructors might teach other work values and attitudes they did not mention, the infrequency in which Adaptable/Resourceful was reported suggests that many teachers may perceive this value as less critical.

Results Relative to Question 2

The second research question asked: To what extent are the work values and attitudes taught by trade and industrial instructors similar to those work values and attitudes reported in the literature as important? As discussed in the early part of this chapter, the AWCI was developed from a wide variety of research which identified work values and attitudes important in the world of work. With the exception of citizenship, every work value and attitude that the instructors identified as teaching to their students was represented by an AWCI cluster. As noted in Table 2, three affective clusters were identified by almost all of the instructors, and nine clusters were identified by about half of the instructors. Typically each
instructor identified about eight work values and attitudes. Thus, the teachers usually identified only about half of the affective work competency clusters listed on the AWCI. However, the conclusion cannot be made that those work values and attitudes not identified by a given subject are not taught by that subject. This became evident when the behavioral event (question 15) was compared to the list of work values and attitudes (question eight). The comparison of these two questions showed that approximately one third of the time at least one work value or attitude would be identified in the behavioral event that was not included in the list of work values and attitudes the instructors stated they taught. In addition some instructors did not state that they taught safety, when in fact it was obvious that they did. Nevertheless, it appeared that those values identified most frequently were emphasized the most.

With the exception of citizenship, every work value or attitude the instructors said they taught has been recognized in the literature as most important. However, it is possible that the instructors are not teaching all the work values and attitudes that have been identified as important. The low frequency in which such affective clusters as Adaptable/Resourceful, Emotionally Stable/Judgmental/Poised, and Persevering/Tolerant were reported suggests that these work values and attitudes may not be emphasized through instruction as much as Dependable/Punctual/Reliable/Responsible, Dedicated/Honest/Conscientious or Ambitious.

For the most part, there does not seem to be a great deal of variance among the instructors from different occupational areas in the identification of work values and attitudes they teach. However, some variance did
surface. For instance, all nine cosmetology instructors identified Pleasant/Friendly and Considerate/Courteous as work values and attitudes they taught. These work values were seldom identified by instructors from other occupational areas. In addition, the auto mechanics and electronics instructors were much more likely to identify Adaptable/Resourceful and Independent/Initiative than instructors from other occupational areas. This variance suggests that certain work values and attitudes may be more important to some occupational areas than others.

Results Relative to Question 3

The third research question asked: What pedagogical techniques do these teachers use to teach work values and attitudes? The pedagogical strategies coding scheme that was constructed to answer this research question was adopted from parts of schemes that had been developed by educational researchers, sociologists, and social psychologists. This hybrid scheme was developed because no one existing scheme contained a category for every pedagogical strategy identified in the literature. With few exceptions, this scheme enabled easy coding of the pedagogical strategies. However, even the initial hybrid coding scheme had to be modified to provide a category for the pedagogical strategies instructors identified. Thus, some pedagogical strategies were given their own codes to avoid forcing them into inappropriate categories. The decision to add new categories was made because Lofland and Lofland (1984) and Miles and
Huberman (1984) advocated modifying coding schemes during data collection and analysis instead of forcing data into predetermined coding schemes.

Data collected from the interviews suggested that these trade and industrial teachers often used several different pedagogical strategies to teach a given work value or attitude. However, it did appear that some pedagogical strategies were utilized much more frequently than others. In addition, there was evidence suggesting that the instructors tended to use different pedagogical strategies to teach different work values and attitudes. For this reason, pedagogical strategies that surfaced through the interviews can best be examined by affective clusters.

**Dependable/Punctual/Reliable/Responsible.** Though this value was reported most often by instructors, the majority of the instructors referred to a reward structure when they talked about teaching Dependable/Responsible to students (see Table 3). Most instructors said they used forms, check-off sheets, and records to evaluate student dependability. In many instances, instructors stated that the shop grade constituted 50% of the students' overall grade.

However, several instructors described different types of rewards. One welding instructor said:

"Our program does a fair amount of work for the public. Usually I get a VICA donation for the work. That money enables me to buy pizza every nine weeks for students with no tardies or absences."
Table 3
Pedagogical Techniques Trade and Industrial Teachers Identified as Frequently Using to Teach Work Values and Attitudes

<table>
<thead>
<tr>
<th>Pedagogical Strategy</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td><strong>More Democratic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group discussion</td>
<td>45</td>
<td>90</td>
</tr>
<tr>
<td>One-on-one counseling</td>
<td>45</td>
<td>90</td>
</tr>
<tr>
<td>Role playing</td>
<td>34</td>
<td>68</td>
</tr>
<tr>
<td>Team building</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Problem solving</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Individualized instruction</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td><strong>More Indoctrinational</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reward structure</td>
<td>47</td>
<td>94</td>
</tr>
<tr>
<td>Role modeling</td>
<td>43</td>
<td>86</td>
</tr>
<tr>
<td>Guest Speakers</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Lecture</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Rote learning</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Similarly a carpentry teacher stated:

"I always order extra material for jobs because students make more mistakes. As a result, I usually have surplus building materials. I let students, who didn’t have any tardies or absences, have this material for free to build themselves something."

Instructors also suggested that they used group discussion, when teaching students to be dependable and reliable.

"Because there is such a shortage of labor in this area, I can even find most of my students a part-time job. However, I make it clear to the students that nothing will get them fired quicker than missing work. Sure there are instances when one has to be absent from work. The class and I talk about those instances. However, I also discuss with the class how employees should contact their employer and inform them of their situation."

Some of the instructors said they had their students role play a situation between an employee and employer. The following example is typical of the situations instructors imposed on their students.

"Sometimes, when a student is repeatedly absent or tardy, I’ll get the student to pretend he is an employee. Then I get another student to
play the role of employer. These are teenagers so there is some joking
going on while the students role play; however, the students do
begin to see things from the employers' perspective."

Instructors again mentioned the frequent use of guest speakers to
emphasize the importance of Dependability/Reliability to students. As one
plumbing instructor put it:

"The guest speakers I have tell it like it is. They tell the students that
employees who lack dependability or reliability are often fired on the
spot. One guest speaker also told the students that a bad reputation
travels faster than a good reputation. The speaker said that a fellow
often has to leave the area to find work when he has been fired
twice."

Other instructors pointed out the importance of being a good role
model. One instructor said:

"I make sure I follow through on what I tell the students. For
example, if I tell a student that certain information will be on the test,
it will be on the test. Second, I admit my mistakes to the students. I
accept the responsibility for my mistakes. Some of the students aren't
used to seeing an adult do that. The students then see that I'm not
going to bite their head off if they make a mistake and as a result they
learn to take responsibility for them."
Dedicated/Devoted/Honest/Loyal/Conscientious. Most instructors listed four or five pedagogical strategies they used to teach this value. The instructors suggested they would even use more strategies, if they were effective. A common theme that surfaced from the instructors' examples was the belief that once a student became conscientious, other work values would follow. However, the instructors also consistently expressed doubt at being effective teaching Dedicated/Devoted/Honest/Loyal/Conscientious. This may explain why instructors reported using so many pedagogical strategies to teach this value.

The majority of the instructors reported the use of a reward structure to teach Dedicated/Devoted/Honest/Loyal/Conscientious. Nevertheless, most of the examples of this pedagogical strategy were of rewards instead of punishments. In the following example, a cosmetology instructor related why she didn't elect to use punishment.

"I felt for this girl. She had had a hard life for someone so young. I started to yell at her when she misbehaved in class. However, I decided that she had probably been yelled at enough. As a result, I decided that one-on-one counseling might be more effective. The student and I sat down, and we talked about her future. I pointed out what the future could hold for her if she successfully completed this program."
Many teachers stated that they did use punishment, but only as a last resort. As one masonry instructor explained.

"The carrot is far more effective with teenagers than the stick. I provide rewards for students who are conscientious. These students get higher shop grades, and I work harder to help find them jobs. Of course there are times when I do have to use the stick (punishment), but only after the other strategies have failed."

An air conditioning/refrigeration instructor related the following example of a student who saw the rewards only after dropping out of school.

"I did not think very positive thoughts about this student coming into my program again. He had been a real problem student before he dropped out the previous year. However after talking with him, he convinced me to give him another chance. He told me that he saw his friends who graduated from this program making twice as much money as him their first year after graduation. He said that he saw his friends getting ahead of him and it hurt. The young man has been an ideal student this year and will now make someone a good employee."

One-on-one counseling was the most frequently cited pedagogical strategy to teach Dedicated/Devoted/Conscientious. From the examples
these instructors gave, it appeared that trade and industrial instructors frequently play a counselor, coach, or even a parental role.

"I listened a great deal to this student. I gave him advice. I essentially provided a father role for the young man. I worked with him after school sometimes, and he sometimes helped me on outside jobs that I was doing. I was able to fulfill a need for this student."

"I really felt for this student. She had so much potential that I really wanted to see her improve her chances for success. The girl needed a friend. She needed someone who would listen to her and care about her. The girl started taking care of herself when she saw others care about her. Once she started caring for herself, she became a conscientious cosmetology student."

An electronics instructor related this story about a student he had that was a gifted baseball player.

"The young man was an average student. He could have been a very good student, but his passion was baseball. I knew that various colleges were trying to recruit the student so I just resigned myself to the fact that his motivation was going to be limited in electronics. I even went and watched the student play in a few games, and he was good. Anyway, after baseball season was over, the young man asked me if I would help find him a part-time job in electronics. I did and
that part-time job worked into a full-time job. He is now a manager for the company and is doing well."

Though honesty was the least mentioned value in this cluster, the instructors' examples indicated that they used essentially the same strategies that they did for the rest of the cluster. The following example is more dramatic than the rest, but it is representative of other instructors' actions.

"One day I received a phone call from someone with a handkerchief over their mouth. The person asked me if I had inventoried my meters lately. The next day I inventoried the meters and sure enough there was one missing. These meters cost around $300.00 and I usually do an inventory every nine weeks. The next day I told the class that I couldn't find one of our meters. I told them that if anyone had borrowed it, I would appreciate its return. I said that I'm sure someone had just forgotten about borrowing it. That night I received another phone call that told me the student who had the meter was no longer in the class. The next day I gave a little talk to the class in which I said that it was morally irresponsible to not report a crime if you had some information about it. A few days later a student who had recently quit school motioned me to come out into the hall. He had something in a brown paper bag. I asked him what it was. He told me it was the meter. I then asked him if he was through with it. He told me he was. I then asked him if it did the job. He said
yes. I then asked the young man why didn't he get his butt back in school. He asked me if I would have him back. I told him I would as long as he would try to be a good student."

Several instructors indicated that being a good role model was especially important in teaching Dedicated/Devoted/Honest/Loyal/Conscientious. However, the instructors readily conceded they were not perfect role models. Many instructors said something quite similar to what this building trades instructor stated.

"I show the students that I try my best, but that I am human. I admit my mistakes. I will even apologize to students when I screw up. I feel that being positive and building trust is a much more effective way to have an impact on students."

Group discussion was used by instructors to discuss the importance of being Dedicated/Devoted/Honest/Loyal/Conscientious. Instructors frequently mentioned that the purpose of these discussions was to reinforce positive student behaviors. In the following example a cosmetology instructor shared an instance where she had success with a nontraditional student.

"I had a male student enroll in my program a few years ago. Boys from other programs would tease him during break. The male cosmetology student wanted to be a hair stylist and was a good
student, but he could not tolerate the teasing. I always have this contest in which I have students from other classes judge my students' mannequins. So I had these boys from this other class serve as judges. I numbered the mannequins so the judges did not know what mannequin belonged to which student. The male student's mannequin won. After that incident all the guys quit teasing him and started coming to him to style their hair."

**Ambitious.** The examples that fell in this category suggested that these trade and industrial teachers used every pedagogical strategy they believed to be effective to help their students become more ambitious. One pedagogical strategy that the instructors used extensively to help the students become more ambitious was the utilization of a reward structure (see Table 3). One culinary arts instructor explained:

"The majority of my students are from the inner-city and are disadvantaged. I have to prove to many of them that hard work does pay off. For the students that really hustle on a given day, I may give them a free gourmet lunch. When a student consistently hustles, I help find that student a good paying job."

A building trades instructor, who was teaching in an area where a building boom was occurring, said:
"I can find any successful student of mine a pretty good paying construction job. However, I have the policy that I only help place or recommend students who show me some ambition. The students are aware of my policy, and this helps to motivate them."

A welding instructor stated:

"I set up a certification program to motivate the students. If a student becomes certified, he can make more money and can transfer the credits he earned here to a community college or welding school."

Numerous instructors equated grades to pay. One electronics instructor related this.

"Most of my students continue their study of electronics at the postsecondary level. So many of them will not enter the full-time labor force for a couple more years. However, the students are very much aware that good grades are critical for them to continue their education and to eventually be successful in the electronics field. I have incorporated a lab grade into my grading system. As a result, the students have become more ambitious in the lab to improve their overall grades."

The instructors used group discussion, one-on-one counseling, guest speakers, and, on rare occasions, lecture to attempt to convince their
students that there were rewards for demonstrating ambition. From the examples it appeared that though group discussion was used frequently by the instructors, its use was seldom planned. The instructors indicated that most of the group discussions started from students' questions or an incident. In these examples, instructors stated that they took advantage of the moment and attempted to make it a learning experience for the entire group. An industrial maintenance instructor said:

"I helped this one successful student find a good paying part-time job. A lot of the time, before class actually started, he would tell the other students about some incident that occurred at work. Sometimes, when the student's incident would emphasize the importance of some work attitude like ambition, I would get a class discussion started about the incident."

Though instructors reported extensive use of a reward structure and group discussions, one-on-one counseling was the pedagogical strategy that dominated the examples for teaching the trait ambitious. However, it is not clear whether the instructors actually used one-on-one counseling more, or whether this strategy tended to surface because of the critical nature of the behavioral event. Regardless of the reason, instructors provided numerous examples of one-on-one counseling to help increase students' ambition. One cosmetology instructor reflected on her actions toward a student. This student, who had been involved in a satanic group and was apathetic about
school, became one of the instructor’s best students and eventually became the manager of an eight chair salon.

"I called the girl’s house several times and never could reach anyone. Finally, when the girl was approaching the maximum days that she could miss, I went to her house. The house was dirty and in bad repair. I told the girl that we missed her a great deal. I asked her to return to the program. The girl said that she had recently done some things that she wasn’t proud of. I told her not to worry about the past, but to worry about the future. The girl came back and we had a lot of one-on-one counseling sessions about how she could succeed in cosmetology."

A welding instructor related this story about a really smart student he had in class who eventually became an engineer.

"This one student came up to me one day and said ‘I wish the heck I could get out of here. All I want to do is get married and go to work.’ I asked the student if he really loved the girl he planned to marry. He said that he did. I said I understand that your father is dead and that your mother is drawing social security benefits. I then asked the student if he knew that he could go to school until he was 23 and his mother would continue drawing those benefits. I then told the boy that he was bright enough and a hard enough worker that he could become an engineer. I told him that if he really loved his mother and
his girl friend, he would at least consider going on to college and becoming an engineer. Well that young man graduated from engineering school at Virginia Tech last year, and he landed a good job."

Several of the instructors also maintained they role modeled ambition. One cosmetology instructor pointed out that she worked hard and the students were aware of this.

"The students know that I never sit down. When I'm not giving demonstrations or a lesson, I'm working with a student or a group of students. I also own and manage a salon. I have earned a college degree, and I am now working on my Master's. My students are aware of all of this. The students also see that I dress in nice clothes, drive a nice car, and live in a nice home. I think that I get the students to start thinking that if a black woman from the ghetto can do this, they can do it."

Finally, many of the instructors individualized instruction to increase students' ambition. One printing instructor explained:

"I individualize instruction for the students. If a student is more interested in one area (e.g., photography, press) than another, I allow the student to work primarily in that area. I do place students for very specific positions. However, I have also found that over time
most students realize the importance of knowing something about the other areas and learn something about them."

**Cooperative/Helpful:** One-on-one counseling was a widely reported pedagogical strategy for Cooperative/Helpful. The majority of these examples were of instances where instructors talked to students about the need to be cooperative. The following incident is indicative of the examples.

"One day, when this student had engaged in some uncooperative behavior, I asked him to step into my office. When I entered the office, I asked the student why he had enrolled in this program. I asked him what his goals in life were. He told me that he wanted to become a welder. I then sat down and told him that if he wanted to become a welder, he was going to have to start working harder at it. I told him that I could help make him a welder because he had good psychomotor skills. However, I also told the student that he had to become more cooperative if he was going to become successful in this trade."

A reward structure was sometimes referred to in these one-on-one counseling sessions.

"My one-on-one counseling sessions with the student would work for awhile, but he would eventually return to engaging in uncooperative behavior. I finally called the student into my office and told him he
had a choice. He could either get his act together and become more cooperative, or he could be transferred out of this program."

The use of a reward structure usually was referred to as the last resort. However, instructors never hesitated to use it when they believed it was necessary.

"After counseling this student on numerous occasions about his behavior, I finally called his parents and told them of the problems I was having with their son. I told them that their son would not be successful in the program unless his behavior changed drastically."

Many of the instructors also said they used team building to help teach students cooperation. The instructors pointed out that many of the positions they were training students for utilized teamwork and that the students needed to be familiar with this approach. One building trades instructor said:

"In construction most of the work is done by teams or crews. Because of this practice and the nature of the work this program does, I often assign students to work three or four in a group. I try to have group members solve whatever problems arise in the group; however, if need be, I will intervene and work with a student who is not cooperating with the rest of the group."
The teachers varied widely in how they assigned students to groups. Some instructors assigned students to groups based on the students' interests. Some instructors integrated second year students with first year students in the groups. The logic behind integrating first and second year students was that more peer teaching would take place. Some instructors segregated first year students from second year students. The logic behind segregation was that second year students are taught more advanced competencies than first year students. One instructor said:

"I randomly assign students to three or four in a group. At semester I reassign the groups. I do this so students won't just work with their friends."

A culinary arts instructor stated:

"A lot of the work I assign to the students in the kitchen is conducive to small group work. Consequently, I often have the students work in groups of three or four. However, I do require the students to form new groups on every Monday."

Instructors also frequently mentioned role playing as a pedagogical strategy they used to teach Cooperation/Helpful.
"When group members are not cooperative with one another, I have them role play the situation in front of the class. I have them do this so that one student can get into another student's shoes."

One electronics instructor had students role play positions within an electronics firm.

"Sometimes I'll have the students form a company. I'll have some of the students be foremen and some of the students be line workers. From role playing, the students see that cooperation is essential to a company's operation."

**Neat/Orderly/Personal Appearance/Manner.** Most of the instructors evaluated students on how neat and orderly they worked in the shops and laboratories. The majority of the programs had a specified cleaning period at the end of each class. Instructors reported they observed "clean-up" to be certain all the students did their share. While observing students clean, the instructors often assigned clean-up grades. However, many instructors said they also led class discussions about the importance of being clean.

"Sometimes I have to ride a few students to get them to clean-up. However, I do tell the class why I want the shop so clean. I relate to them how I have seen paint jobs ruined from a dirty booth. I ask
them how they would like it if someone painted their car in a dirty booth."

Several instructors stated they utilize a tool room or shop supervisor to help teach this value. A building trades instructor stated.

"I assign a tool room foreman every week. It is the foreman's responsibility to make sure every tool is clean, in proper working condition, and stored in the appropriate place. I have some power tools in this shop that are over 40 years old. They are in mint condition and better than some of the newer tools. The students see this and realize the importance of taking care of tools."

Only cosmetology instructors evaluated students' personal appearances. While cosmetology instructors accepted "high fashion" student hair styles, the students were expected to have their hair fixed and lab coats clean.

"I evaluate the students, and I have the patrons evaluate the students. The cleanliness of their work station and their personal appearance are factors considered in this evaluation."

"I have a task check-off sheet. The students must bring their lab coats. They must clean up their work stations at the end of each class. The students are graded on this."

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Though instructors definitely employed a reward structure in teaching Neat/Orderly/Personal Appearance/Manner, they also led class discussions and conducted role playing.

"We talk about how important first impressions were. I ask the students if they would feel comfortable having their hair cut by a cosmetologist who had messed-up hair or a dirty work station."

Several instructors reported that they would sometimes have employers and managers be guest speakers. The instructors said that guest speakers would frequently stress the importance of being clean and having a good personal appearance.

"One time I thought about asking a guest speaker to mention the importance of being clean and having a good personal appearance. I decided not to, but he stressed it without me saying a word to him. I have had a lot of guest speakers and they nearly always mention it."

**Accurate/Quality of Work.** When the instructors described how they taught Accurate/Quality of Work, they referred to several different pedagogical strategies. The following example is representative of what many of the instructors said:
"First, students know I grade them on the quality of their work. The students have a shop grade and a classroom grade. Most of the students need a high shop grade to bring up their classroom grade. Second, I do not emphasize speed when they are working on projects. I emphasize quality. Third, I give the students a lot of positive reinforcement on good work and am tactful with them when they do poor work."

Repeatedly, instructors maintained that by simulating the work place, students learned the importance of quality. Most of the instructors indicated that they evaluated student performance in the lab as much as student performance in the classroom. The "shop" grade was frequently referred to as a reward structure when the instructors talked about teaching quality. A masonry instructor stated.

"I demand accuracy. I tell the students that close only counts in hand grenades and horseshoes. We role play. I usually play the foreman and have students be the masons. The students' shop grade is often based on how close their bricks were laid to the line."

A cosmetology instructor also utilized shop or lab grades, but incorporated the public's help in assigning the grades.

"I developed a card for customers. The card has the customer rank the quality of their hair style, how courteous the student was, and
several other things. Of course, I still check every hair style myself, but I do incorporate the customers' evaluation into the students' lab grade."

However, one building trades instructor suggested that there were inherent rewards in "craftsmanship".

"We build a house every year in this program and then auction it off. I have the students write their names on back of the building material before they install it. Thus, their name is literally on the work they do. This makes them start thinking like craftsmen."

Though the instructors penalized students for sloppy work, the instructors recognized that students are not experts and they are going to make mistakes while learning. An auto mechanics instructor related an incident which could have resulted in a costly mistake.

"I had two students who rebuilt the motor of a Ford pick-up truck. They pulled the engine and completely overhauled it. They did everything. They put in cam bearings, pistons, rings, oil pump, and timing gears. They started the truck, and there was no oil pressure. I had the boys pull the engine and tear it back down. After tearing back into the engine, the boys discovered that they had not tightened the oil pump sufficiently where it bolts onto the block. I didn’t scold the boys or take off any points. It was their truck, and they learned an
important lesson. Their embarrassment and repeat work was enough punishment."

Many of the instructors also said that an incident would sometimes start a group discussion about quality. One printing teacher said:

"We run a great deal of production in this program. One day a group of students ran 500 cards, and they were all wrong. I stopped the presses and had the entire class to analyze what went wrong and where it went wrong. The point was made in the discussion that the customer would be happier with fewer correct cards than with more incorrect ones."

Regardless of the pedagogical strategies instructors talked about, most of them made the point that the instructor must model quality. One auto body instructor said:

"I restore classic cars as a hobby, and the students love to watch my progress on an old car. Last year I restored a 57 Chevy, and it turned out real nice. The students loved to look at that car. I believe it made them work harder to do a good job."

One building trades instructor made a similar point.
"The students watch everything I do, and if I leave a hammer mark on a piece of trim, you better believe they point it out to me. I like that though because it has become somewhat of a game to see how good we can build something."

**Independent/Initiative.** Instructors reported using primarily one-on-one counseling, group discussion, and a reward structure to teach this cluster or value. The examples revealed that instructors believe students should be rewarded for demonstrating initiative. One plumbing instructor stated:

"The more assistance I give a student, the lower his grade."

Some instructors formally included Independent/Initiative as one of the criteria for students' shop grade. Other instructors suggested they informally graded students' independence or initiative when project grades were assigned. Instructors also maintained they gave a great deal of positive reinforcement when students displayed this attitude.

"I had a learning disabled student that was 17 years old but in the ninth grade. The student had no confidence in himself. As a result, he would never put forth much effort. I designed some tasks for him that I knew he could accomplish. I slowly increased the difficulty of the tasks. I gave him a lot of praise on the things he did well on. The student's grades started improving. He never became an A student,"
but the student did become one of my hardest workers. And, after the first nine weeks, he did always earn an A for his shop grade."

A cosmetology instructor stated that she normally would have a one-on-one talk with a student who repeatedly demonstrated a lack of Independence/Initiative. However, she said that because in one class the majority of the students lacked independence, she changed her behavior.

"I had never had the students form a circle before and talk about being independent and showing initiative, but I was willing to try anything at this point. The students acknowledged there was a problem and they attributed it to their lack of confidence. The rest of the period the students and I talked about ways we could build their confidence."

An auto mechanics instructor explained how he built the confidence in one student through one-on-one counseling.

"I had this student who read on the third grade level. He could not read the shop manuals. I told him that there was nothing for him to be ashamed of. I said that he was in this program to learn, and that it was my responsibility to help him learn. I started giving this student real short reading assignments. For example, I had him read want ads in the paper and in trade journals. I spent five to ten minutes everyday with this student and discussed with him what he had read."
I showed an interest in him. I gave him a lot of positive reinforcement. The student got motivated, and it became a challenge for him to not consult me when he worked from a manual."

**Follow Directions/Responsive.** Most of the instructors indicated they had some type of reward structure in place to encourage students to follow directions. Instructors explained that the reward structure was fair and that students were aware of the consequences of not following directions. However, instructors did emphasize that they always tried to explain the directions and why students needed to follow a specific procedure. In addition, many instructors suggested that it was sometimes their fault when students did not follow directions. The instructors implied that giving clear directions was a skill in itself. One auto mechanics instructor related this incident.

"I had given this student directions on how to make this repair to his car. When I came back to check on the student, I found that he had left out one of the steps. As a result, the student had to back up and repeat some of the steps. It was no big deal but the student realized that directions did need to be followed."

A carpentry instructor related what he requires students to do so that they will more likely follow his directions.
"I have the students carry a note pad with them at all times. When I give them directions, they have to write the directions down. They also use the note pad to write down measurements. At the beginning of every class I check to see whether each student has his tape measure, his pencil, and his note pad."

The auto mechanics, air conditioning and refrigeration, and electronics instructors frequently referred to having students follow directions from a manual. Most of the instructors indicated that they followed a procedure similar to the following example provided by an air conditioning and refrigeration instructor.

"I do a lot of individualized instruction in my lab. I frequently have students conduct work by following a service manual. I try to give the students just enough supervision where I can prevent them from committing any major mistakes."

**Careful/Alert/Perceptive.** Instructors stated they demanded that students follow their lab's safety rules. Most of the instructors said they gave safety demonstrations, safety tests, and role modeled safe behavior. These instructors also worked individually with students to help them perform certain operations safely. Instructors maintained that for most students, this was enough. However, the instructors suggested that there were usually one or two students who had to realize that there were
penalties for unsafe behavior. One carpentry instructor explained how he helped his students to be careful.

"I had this one student who knew all the safety rules but would frequently choose not to wear safety glasses or use a push stick. At first I just reminded the student. Then I started taking points off his shop grade. When that didn’t work, I would not let the student use any power tools for a week for every safety violation I caught him committing. The student started remembering to wear safety glasses then."

A building trades instructor took a rather unique approach to teaching his students the importance of wearing safety glasses.

"Sometimes I’ll make a student wear an eye patch for a class period if I catch him not wearing safety glasses when using a power tool. After the student does this, he usually realizes the importance of having both eyes."

Regardless of the pedagogical strategy used by an instructor, all the instructors suggested that this was one value that they demanded and would not negotiate on. As one building trades instructor related.

"This shop has over 100 saws in it if you include stationary, portable, and handsaws. Thus, there is the potential for a serious accident. Of
course I am concerned about the students' safety, but I would be lying if I didn't admit that I'm also concerned with my being held liable if a student did get hurt."

Considerate/Courteous. The pedagogical strategies the instructors stated they used to teach this cluster were quite similar to the ones they stated for the Pleasant/Friendly/Cheerful cluster. In fact, in some instances it was difficult to determine which of these two affective clusters would be the most appropriate category for the example. Role modeling was the most cited pedagogical strategy to teach this value. The instructors' examples generally echoed this welding instructor's policy.

"First, I show my students respect. I treat them like young men. If there is a problem, the student and I sit down and discuss it like two men. I don't fly off the handle, and I don't expect my students to. I show them consideration, and as result, the students show me consideration."

A cosmetology instructor stated that she did role playing along with role modeling.

"I am courteous to my students. I earn the students' respect -- so the students are usually courteous to me. I also do a sketch of a poor hairdresser and a good one. I demonstrate things like how to greet a customer when I am playing these roles."
Many of the instructors indicated that their students work with the public and learn the importance of being courteous. Air conditioning and refrigeration, auto mechanics, and auto body instructors frequently mentioned that they worked with students to help them learn how to call and order parts. Several of the auto mechanics instructors also worked with students in talking to "customers" about their cars. All of the cosmetology instructors stated that their students worked with the public and many of these instructors also mentioned the use of group discussion.

"I make it a point every Friday for the class to reflect upon the week's experiences. In these discussions being courteous frequently emerges as a topic. Sometimes we talk about it in regards to a rude customer. Sometimes students will admit to having had a bad day and not being as courteous as they should have been. These discussions are almost like group therapy in that class members frequently contribute suggestions or criticisms for a given incident."

**Pleasant/Friendly/Cheerful.** Role modeling was the most frequently reported pedagogical strategy to teach this value. Several instructors argued that their behavior had a strong effect on the students' behavior. One masonry instructor shared his insight concerning this phenomenon.
"I had been a union foreman for several years before I started teaching masonry. When I first started teaching, I was not very pleasant to the students and they were not very pleasant to me. For instance, when a student said 'hey man' to me, I said 'hey boy' to him. Then I realized that students don't mean anything personal by it. I still don't allow students to address me as 'hey man', but I don't alienate them by calling them boy either. As a result, now a student will catch himself saying it before I even have a chance to react. The whole climate of the classes is now a lot more positive."

A welding instructor who taught primarily inner city youth said this.

"I treat my students with respect and dignity. I am polite to them, and I never embarrass a student in front of others. As a result, my students usually are polite to me and treat me with respect."

A cosmetology instructor said that besides role modeling she sometimes uses a different strategy.

"I have the students break into small groups. Then each student has to pay their group members a compliment. Some students don't know how to take a compliment. So I do a lot of class exercises that promote a positive attitude."
Only cosmetology instructors stated they actually graded students on their politeness, but several instructors did indicate they took action when a student was impolite. One printing teacher explained how he treated students who were impolite.

"If a student is slightly impolite on a given day, I ignore it. Everyone has a bad day now and then. However, if the problem continues, I have a one-on-one talk with the student. I try to find out if the student is having some problems. I explain that impolite behavior is not accepted in industry, and it is not accepted repeatedly in this program. If the counseling proves ineffective, I resort to punishment."

**Efficient/Quantity of Work/Achieving/Speed.** The most frequently cited pedagogical strategies for teaching this value were role modeling and one-on-one instruction. Many of the instructors said they constantly gave demonstrations on certain procedures. The instructors maintained they modeled efficiency in these demonstrations. A carpentry instructor stated:

"This program builds a house every year. I'm showing the students how to minimize waste at every phase of construction. The students watch the waste too. They know the more materials we have left, the greater their chance of getting to build a dog house or something."

A building trades instructor said:
"Sometimes, when the students and I are nailing down some plywood or shingles, we get into a little contest to see who can nail the fastest. However, most of the time I stress quality not speed."

The theme, that students first had to get good before they got fast emerged from several of the instructors examples. For example, a masonry instructor said:

"I give points to a student for the number of brick laid to the line. I subtract points for those brick that are not laid to the line. I know, and the students learn, that a mason has to be fast to make good money. However, it is far better to be a slow craftsman than not a craftsman at all. And, speed comes quickly when your doing it all the time."

An auto body instructor said:

"One of the biggest challenges I have with students is to slow them down. They want to paint a car long before it is ready. I try to get the students to be more methodical and particular in their work."

**Persevering/Patient/Enduring/Tolerant.** From the few examples that emerged concerned with this value, it appeared that instructors taught Persevering/Patient/Enduring/Tolerant by role modeling
and role playing. Instructors maintained they were, for the most part, patient with students. Instructors emphasized once again that they wanted a good job done by the students -- not a fast job. Instructors also suggested that they had learned to be tolerant of students with nontraditional appearances (e.g., males who wore earrings or long hair and females with orange or purple hair).

Many examples related to this cluster referred to students working in shops or laboratories. The policy used in most subject areas seemed to be that the same students worked on a given project from start to finish. One masonry instructor explained.

"I have the students lay a lot of practice bricks here in the shop. We use a mortar that allows us to tear down the bricks easily. The students lay brick walls, corners, and even fireplaces. At the end of each period, I check the students' work. The next day the students have to relay any courses or bricks that are wrong. The students learn to hang in there until they get it right."

**Emotionally Stable/Judgmental/Poised.** This was one of the few values where instructors indicated they taught almost exclusively using one-on-one counseling and individualized instruction. The theme that emerged related to this cluster was that instructors frequently encounter students with serious personal problems. Instructors made the point that because they spent close to three hours a day with a class of students, they spend more time with these young people than other teachers, counselors, and
sometimes parents. Thus, even though none of the instructors indicated they had any training in counseling, they did counsel students extensively. Instructors also argued that because their student to teacher ratio was smaller than most academic teachers' ratio, they got to know the students better. An electricity instructor related this incident.

"I had this student who was emotionally unstable. He had been on drugs, but he had gotten off them while at a treatment center. The student wanted to improve his life so I was willing to devote a lot of extra time to him. I hired him to help me on some outside jobs. He would go with me to run errands just so we could talk more. I still see this young man. He now has his license and is making good money."

A cosmetology instructor related a story about a student who had used drugs, sold drugs, had been convicted of minor theft, had engaged in prostitution, and had a history of explosive behavior.

"I allowed this girl into my program after she promised me and her probation officer that she would work hard in the program and not cause any problems. About a month after the girl had been in the program, she blew up at another student and called that student a few choice names. My initial reaction was to blow up at the student, but I restrained myself. I just went over to the girl and firmly told her that I would like to talk with her in my office. I guess I thought that the girl had probably been yelled at enough. When I entered the office
the girl apologized for not acting like a lady. She asked me if I would forgive her. I told her that while I was upset with her, I still had high expectations for her. I told her that I was not the one to apologize to but that the other student was. The girl apologized to the other student, and we had several heart-to-heart talks after that."

After counseling with a student, a second cosmetology instructor found the source of a student's instability.

"One day I witnessed this student blow up at a boy who said something derogatory about the way she cut his hair. I went over and told the student that I wanted to talk to her in my office. When the girl came into my office, she broke down crying. The student apologized for her actions and then related to me several problems she was having. One of her problems was an abscessed tooth. The girl's family was so poor that the girl could not see a dentist. I made arrangements with my dentist to treat the girl. I paid for the dental work, but the girl and her mother insisted on paying me back as they could."

An auto mechanics instructor related this incident about a student who had had a nervous breakdown.

"This student was extremely smart but he could not handle stress. When the student came back from eight weeks at a mental institution,
he told me that he was going to quit school and get his GED. I told him that I hated to see him do that because he was so good in this program. After talking for a long while, we decided that he would at least continue in this program. I worked with the student, the student's parents, and the administration to arrange this. I then found the student a part-time job at a parts store. The student successfully completed the program, and he now works full-time at the parts store. They love him there.

**Citizenship.** Every example of teaching citizenship referred to community service projects performed by the program vocational student organization Vocational Industrial Clubs of America (VICA). The following example provided by a carpentry instructor is representative of what the instructors reported.

"Every year our VICA program makes wooden toys and gives them to needy children. The students love to make them, and they feel good about making some little girl or boy happy."

Similarly a welding instructor said:

"Our VICA club collects can goods for the Salvation Army at Christmas time. Though I make a kind of game out of it to see which kid can collect the most cans, the students feel good about helping those less fortunate."
Adaptable/Resourceful. The examples that were given for this attitude described students engaged in laboratory or shop tasks. The electronics and auto mechanics instructors argued that their students need to be confronted with problems similar to the ones they will be confronted with upon entering industry. These instructors utilized role playing by having their students play as if they were technicians in their respective occupational areas. However, when the students experienced difficulty in solving a problem, the instructors would normally provide some one-on-one counseling. The following example, given by an auto mechanics instructor, exemplifies the pedagogical practices these instructors described.

"I had this one student conduct a diagnosis on a truck. The truck had a bad hesitation. The student had eliminated what some of the sources of the problem could be. However, he still could not locate what was causing the problem. I asked the student some questions about the truck and about what he had found. Based upon my questions, the student was eventually able to pinpoint and correct the problem."

Summary of Results Relative to Question 3

Data collected from the interviews suggested that these trade and industrial teachers often used several different pedagogical strategies to teach a given work value or attitude. Reward structure, group discussion,
one-on-one counseling and role modeling were the pedagogical strategies most frequently cited by the instructors. However, there was evidence suggesting that the instructors tended to use different pedagogical strategies to teach different work values and attitudes. For this reason, pedagogical strategies that surfaced through the interviews were examined by affective clusters.

Results Relative to Question 4

The fourth research question asked: To what extent do teachers design specific learning experiences to teach work values and attitudes or do they teach work values and attitudes incidentally with cognitive and psychomotor skills? Cosmetology instructors provided most of the examples for designing a lesson or a learning experience to teach work values and attitudes. This pattern may have been the result of the nature of this occupational area, or it could be that curriculum guides cosmetology instructors use include a unit on affective work competencies while the other trade and industrial instructors' curriculum guides apparently do not. One cosmetology instructor explained:

"My curriculum guide has a unit on work values. As a result, I always spend at least a couple of weeks on this unit at the beginning of the school year. Usually I introduce a particular work value and talk about the importance of it. Then I often have a couple of students role play a given situation in front of the class. Usually one student plays a
hair stylist and another student plays a customer. The class then has a discussion about what the students role played."

However, this cosmetology instructor and other instructors emphasized that teaching work values and attitudes is not something that can be provided in just a couple of weeks. Practically all the instructors maintained work values and attitudes instruction is something that must be done throughout the school year. Nevertheless, several instructors, and most of the cosmetology instructors, argued that there were times when they felt a designed learning experience concerning work values and attitudes was especially appropriate. One cosmetology instructor gave this example.

"There are times in the week that our cosmetology program is open to the public. One customer was quite rude to one of my students. The customer had very thin hair and did not have realistic expectations of what a permanent could do to improve her appearance. The customer voiced her dissatisfaction with the permanent to the student. This really upset the student, and the girl left the lab in tears. The next day I had two students role play this incident. I had them do it a few times until I thought they really duplicated what had transpired the previous day. I then had the class brainstorm different ways a hair stylist could handle such a customer. At first the students did not take the task seriously because they said things like 'I would pull her hair out'. However, after some time, the class did get serious, and
we reached a consensus on what a hair stylist should do in such a situation."

An air conditioning and refrigeration instructor stated.

"I read this letter to the class that was written from an employer to an applicant who was not selected for the position. The letter informs the applicant that if he is serious about wanting employment, he had better improve his appearance. This letter really gets a class discussion going because some of my students have long hair or an earring."

Cosmetology instructors most frequently reported teaching work values and attitudes incidentally with cognitive and psychomotor skills. A dominant theme that surfaced from the interviews was that trade and industrial instructors attempt to have their programs simulate industry as closely as possible. Consequently, students are exposed to work attitude instruction while they are learning competencies in the laboratory. The rationale behind this strategy is that entry level employees are expected to demonstrate an acceptable work attitude while performing specific tasks and that students need to learn work attitudes and values in a similar context. Thus it appeared that work values instruction occurred even more frequently with the teaching of psychomotor skills than with cognitive skills.
Another reason that work values and attitudes may be taught primarily with psychomotor skills is the organizational structure of most secondary vocational programs. The vocational programs included in this study had classes that were approximately two and one half hours in length. Several instructors indicated that their students spent more than 50% of their time in the laboratory. Since psychomotor skills are usually emphasized in the laboratory, it seems reasonable that affective skills are taught incidentally with them.

In summary, instructors do design specific learning experiences to teach work values and attitudes. However, in most instances, they teach work values and attitudes incidentally with psychomotor skills. It appeared that cosmetology instructors designed specific learning experiences to teach work values and attitudes much more frequently than did teachers from other instructional areas.

Results Relative to Question 5

The fifth research question asked: To what extent are pedagogical techniques that secondary trade and industrial instructors use to teach work values and attitudes democratic or indoctrinational? Upon examination of the pedagogical strategies most frequently identified by instructors (see Table 3), it appeared that these persons used democratic strategies slightly more than indoctrinational strategies. This finding is in contrast with Bowles and Gintis's (1976) assertion that vocational education uses primarily indoctrinational strategies. Though 94% of the instructors reported using a
reward structure, 90% of the instructors reported using group discussion and one-on-one counseling. And, over one third of the instructors reported using role playing. In addition, it is interesting to note that reward structure and role modeling were the only two indoctrinal pedagogical strategies used frequently by instructors.

Reward structures that instructors employed were similar but less severe than reward structures employed in the world of work. Most were in the form of relatively sophisticated evaluation procedures. One cosmetology instructor explained her reward structure.

"One half of the students' grade is based on their performance in the lab. I use a form that considers how clean and orderly the student and her work station were, the quality of the student's work, and how pleasant and cooperative the student was. I also have customers of the students fill out these forms, and I include customers' evaluations as part of the students' grade."

It also was discovered that sometimes instructors are required to employ a reward structure that has been developed by their administrators. Regardless of the specific reward structure, these instructors consistently used positive reinforcement much more than punishment.

Instructors consistently made the point that regardless of how much they preached or lectured positive work values and attitudes, students always observed the instructors to see if they practiced what they "preached" (taught). Thus the instructors realized that they served as role
models for the students. The literature identified role modeling as an
indoctrinal pedagogical strategy. However, it became evident that
instructors could not avoid serving as role models. As one instructor put it:

"My students watch me so closely that they notice if I shaved in
the evening instead of that morning. I once used a dull chisel for a
screw driver. The students practically never let me live that down.
But, I admit my mistakes. I let the students know that everyone
makes them, but that not everyone learns from them."

Bowles and Gintis (1976) contended that vocational education uses
indoctrinal strategies to maintain the status quo or to minimize the
opportunities for the working class. However, educators and social scientists
have provided evidence that a reward structure is necessary and positive.

Another problem that arose in answering this research question was
that some examples of group discussion and one-on-one counseling tended to
be indoctrional. In these instances, instructors dominated the interaction
and suggested there was little negotiation or input. For example, it is
questionable that the following one-on-one counseling session was very
democratic.

"I asked the student how he wanted to earn a living. When he told me
that he wanted to become an electrician, I told him that he had better
start getting his act together then because he was about to be out of
this program."
The above example, and numerous other quotations, suggest that democratic and indoctrinational strategies should be conceptualized as forming a scale rather than a dichotomy. Thus while the literature labels certain pedagogical strategies either democratic or indoctrinational, the findings suggest teachers can manipulate strategies to the extent that they possess both democratic and indoctrinational qualities.

Instructors repeatedly suggested that they had no ethical problem with using indoctrinational techniques, it was just that democratic strategies often proved to be more effective. This may explain why instructors reported using role playing, team building, problem solving, and individualized instruction more than lecture and rote learning. One masonry instructor explained.

"I was a union foreman for several years. I think because of this experience, I was pretty authoritative with the students when I first started teaching. I did a lot of lecturing and yelling at students. That behavior only makes things worse. I still demand a lot from students, but now I allow more student input and am a lot more positive. I have become a teacher instead of a foreman."

It became clear from the interviews that instructors are sincerely interested in maximizing students' opportunities. One electronics instructor went to great lengths to provide opportunities for a student.
"About three years ago I had a student who was really brilliant. However, he had a difficult time following a structured curriculum. Because the student learned so rapidly, I individualized his instruction so that he would be challenged. Though this student excelled in my program, he could not be successful in a rigid electronics program at a nearby community college. He came back to me, and I helped find him a research position in an electronics firm. He is doing extremely well at this company because he had a mind for research."

There were numerous examples of instructors who went to great lengths to help at-risk students graduate from high school. A cosmetology instructor related this story about a student who quit coming to school. The student was very bright and pretty, but she came from a poor background and was about 50 pounds overweight.

"I had been working with this girl and telling her how good she looked. After she had missed several days, I attempted to reach her by phone and couldn't. I finally found out where she lived and drove out in the country and visited her. I was able to persuade her to come back to school. The student came back to the program and continued to lose weight. I got her a part-time job as a shampooer."

A carpentry instructor provided a similar story.
"I helped this one student get a job as a carpenter's helper. The student came from a poor family, and he decided that he needed money more than an education so he quit school. I frequently stopped and visited with this young man when I saw him on a job-site. I eventually persuaded him that he should return to school and get a high school diploma. The student did come back and graduate. He is now a successful contractor in this area. In fact, he serves on my advisory committee."

While it is true that many of the occupations these secondary trade and industrial programs are preparing students for can be described as working class, it appears that without vocational training many of the students would not have the quality of life that as graduates they now experience. The secondary trade and industrial instructors exerted tremendous effort to maximize opportunities for students. This finding seems to conflict with Bowles and Gintis (1976) assertion that vocational education works to maintain the status quo by minimizing the opportunities for working class students.

Chapter Summary

A description of the sample, analysis of data, and findings of the study were presented in this chapter. A descriptive analysis of the sample, provided the following information: (1) The sample consisted of 50 Virginia secondary trade and industrial education instructors. (2) There
were 41 male instructors and nine female instructors; all the female subjects were cosmetology instructors. (3) The mean age of the sample was 47.5. (4) The average years of teaching experience was 14.28. (5) The mean occupational experience was 14.38 years. (6) The most common educational attainment was the completion of some college work.

Results revealed that the secondary trade and industrial instructors taught the following types of work values and attitudes to their students: (1) Ambitious, (2) Cooperative/Helpful, (3) Adaptable/Resourceful, (4) Independent/Initiative, (5) Accurate/Quality of Work, (6) Pleasant/Friendly/Cheerful, (7) Follow Directions/Responsive, (8) Careful/Alert/Perceptive, (9) Considerate/Courteous, (10) Emotionally stable/Judgmental/ Poised, (11) Persevering/Patient/Enduring/Tolerant, (12) Neat/Orderly/Personal Appearance/Manner, (13) Dependable/Reliable/Responsible, (14) Efficient/Quantity of Work/Achieving/Speedy, and (15) Dedicated/Devoted/Honest/Loyal/Conscientious. These are values and attitudes that educators, researchers, and industry members report as being most important to work success.

Instructors reported using several different pedagogical strategies to teach work values and attitudes. However, reward structure, group discussion, one-on-one counseling, role modeling and role playing were reported as being used most often.

Instructors did design specific learning experiences to teach work values and attitudes, but this was infrequent. The vast majority of the time, instructors taught work values and attitudes incidentally with psychomotor skills.
Instructors used both democratic and indoctrinational pedagogical techniques to teach work values and attitudes. More democratic pedagogical strategies were used than indoctrinational, but reward structure and role modeling were used frequently as forms of indirect instruction.
Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The first section of this chapter contains a summary of the study. The summary is followed by a presentation of conclusions. Two additional sections focus on implications for utilization and recommendations for further research.

Summary of the Study

Statement of the problem

The primary objectives of this study were to identify the work attitudes and values that secondary trade and industrial instructors teach and to describe the pedagogical techniques they use to teach them. Another objective of this study was to explore whether work values and attitudes are taught incidentally with cognitive and psychomotor skills, or whether instructors prepare specific learning activities to teach work values and attitudes.

The Sample

The study's sample consisted of 50 secondary trade and industrial teachers from 11 different educational regions in the state of Virginia. The instructors were nominated by their respective area center directors as being effective teachers of work values and attitudes. There were 41 male
instructors and nine female instructors. The mean age of the sample was 47.5. The mean for the instructors' teaching experience was 14.28 years and the mean occupational experience was 14.38 years. Most of the instructors had completed some college studies.

Instrumentation

A four-part interview schedule was developed to obtain data for this study. Part I asked interviewees to describe characteristics they have which contributed to their success in teaching work values and attitudes. Part II asked the respondents to identify the work values and attitudes they teach to their students, and to provide an example of a pedagogical technique they use to teach each work value or attitude. Part III asked for such demographic information as teaching experience, industrial experience, educational attainment, trade and industrial area taught, gender, and age. Part IV asked the respondents to describe one event in which they believe they were effective in teaching work values and attitudes to a student, a group of students, or an entire class.

Data Collection

The instructors were contacted by telephone and asked to participate in the study. Once consent was acquired, the interview session was scheduled. Letters that explained the study in more detail and project summaries were then sent to the instructors. In addition to reminding the instructors of the interview date and time in the letter, the secretaries of the selected area vocational and technical centers were contacted the day prior
to the interviews and asked to remind the instructors of the scheduled interviews by placing notes in their mail boxes. All except for one of the interviews were face-to-face. A telephone interview was arranged for one instructor who forgot to participate in his scheduled interview. All of the interviews were tape recorded.

Findings

Due to the qualitative nature of this descriptive study, the researcher followed Miles and Huberman's (1984) suggestions and reduced the over three hundred pages of notes, displayed and analyzed the data, and then finally drew conclusions based on the emerged themes.

Although concurrent analysis was used in this study, there was an analysis phase following the completion of the interviews. The work values and attitudes that instructors listed and the pedagogical techniques employed by the instructors to teach them were coded based upon categories established in the literature. HyperQual, a qualitative microcomputer software program, was used to assist in this process. HyperQual facilitated the recording and analysis of data by enabling the researcher to produce electronic note cards. Through the use of electronic note cards, the researcher assigned codes to parts of data so that themes were extracted to tell a story. Because HyperQual demands that segments of text be coded for recall, the recording and analysis of data was still quite laborious.
The following paragraphs summarize the five research questions concerned with work values and attitudes instruction by selected secondary trade and industrial education teachers.

Question 1: What types of work values and attitudes do secondary trade and industrial instructors, who have been identified as successful, teach to their students? Instructors directly and indirectly taught numerous work values and attitudes to their students. Though the instructors were not entirely consistent with their terminology, the following affective clusters are representative of the work values and attitudes the instructors identified. The affective clusters include (a) Ambitious, (b) Cooperative/Helpful, (c) Adaptable/Resourceful, (d) Independent/Initiative, (e) Accurate/Quality of Work, (f) Pleasant/Friendly/Cheerful, (g) Follow Directions/Responsive, (h) Careful/Alert/Perceptive, (i) Considerate/Courteous, (j) Emotionally stable/Judgmental/Poised, (k) Persevering/Patient/Enduring/Tolerant, (l) Neat/Orderly/Personal Appearance/Manner, (m) Dependable/Reliable/Responsible, (n) Efficient/Quantity of Work/Achieving/Speedy, (o) Dedicated/Devoted/Honest/Loyal/Conscientious, and (p) Citizenship.

However, some work values were emphasized more than others. For example, practically all the instructors stated they emphasized the Dedicated/Honest/Conscientious, Dependable/Punctual/Reliable/Responsible, and Ambitious clusters; while few instructors said they taught Adaptable/Resourceful, Emotionally Stable, and Persevering/Tolerant clusters. It should also be noted that while every cluster was identified at
least a few times, instructors, on the average, identified only eight work values or attitudes.

Question 2: To what extent are work values and attitudes taught by trade and industrial instructors similar to those work values and attitudes reported in the literature as most important? The Affective Work Competencies Inventory (Kazanas, 1978), which was developed and validated by educators, researchers, and industry members, served as an effective coding scheme for the identified work values and attitudes. Thus, one can conclude that instructors teach work values and attitudes that have been identified in the literature as most important. Though it became evident that instructors emphasized some work values and attitudes more than others, all identified work values and attitudes have been recognized in the literature as being important.

Question 3: What pedagogical techniques do these teachers use to teach work values and attitudes? The instructors reported using several different pedagogical strategies to teach work values and attitudes. From most frequent to least frequent the identified pedagogical strategies were: (a) reward structure, (b) group discussion, (c) one-on-one counseling, (d) role modeling, (e) role playing, (f) guest speakers, (g) team building, (h) problem solving, (i) individualized instruction, (j) lecture, (k) rote learning, and (l) citizenship. While instructors did use different pedagogical strategies to teach different work values and attitudes, they consistently reported using four or five different strategies to teach any given affective cluster.
Question 4: To what extent do teachers design specific learning experiences to teach work values and attitudes or do they teach work values and attitudes incidentally with cognitive and psychomotor skills? For the most part, instructors taught work values and attitudes incidentally with cognitive and psychomotor skills. In fact, the examples indicated that the majority of times work values and attitudes are taught incidentally with psychomotor skills and cognitive skills. Cosmetology instructors were the exception. They reported designing affective learning experiences much more frequently than did teachers from other instructional areas.

Question 5: To what extent are the pedagogical techniques that secondary trade and industrial instructors use to teach work values and attitudes democratic or indoctrinal? Instructors used both democratic and indoctrinal pedagogical techniques to teach work values and attitudes. Democratic pedagogical strategies such as group discussion, one one counseling, and role playing were reported extensively. Two indoctrinal strategies, reward structure and role modeling, were also reported to be used extensively by instructors. Thus the instructors had preferred strategies from both schools of thought. However, the examples suggested that democratic and indoctrinal strategies should be perceived as points on a scale rather than as a dichotomy. For instance, some reward structures tended to be rather democratic and some one-on-one counseling sessions tended to be rather indoctrinal. Nevertheless,
the data suggested that instructors preferred democratic strategies because they perceived them to be more effective.

Conclusions

This investigation examined work attitudes and values instruction by secondary trade and industrial instructors. Its purpose was to gather data to describe the work values and attitudes that instructors taught and to describe the pedagogical strategies that instructors use to teach them.

The results of the investigation indicated that these secondary trade and industrial instructors taught work values and attitudes that are recognized in the literature as being important. However, the evidence suggests that some important work values and attitudes are emphasized more than others. For example, Dependable/Punctual/Reliable/Responsible, Dedicated/Devoted/Honest/Loyal/Conscientious, and Ambitious were not only identified by most of the instructors, but several instructors also gave numerous examples of these affective clusters. In contrast, few instructors said they taught Adaptable/Resourceful, Emotionally Stable, and Persevering/Tolerant and those who did gave only limited examples of teaching these values or attitudes.

The work values and attitudes that were emphasized by the instructors were the ones instructors perceived as being most important for their students to learn. In addition, the work values and attitudes that instructors emphasized were the ones identified in the literature as being most critical for job survival.
Marxists, such as Bowles and Gintis (1976), would argue that the emphasized work values and attitudes are the ones most appropriate to working class occupations. Thus Bowles and Gintis's position would be that this finding supports their assertion that vocational educators help maintain the status quo. While this assertion may be partially true, there are certainly flaws in this perspective. Although the instructors did emphasize Dependable/Punctual/Reliable/Responsible and Dedicated/Devoted/Honest/Loyal/Conscientious clusters, they also emphasized the Ambitious cluster. In addition, it became evident through the interviews that instructors attempted to maximize student success. Not only did the instructors enjoy relating stories about past students who are now engineers, managers, or entrepreneurs, but they also shared incidents in which they worked with students to increase their chances for success upon graduation.

The findings of this study provide only partial evidence of Bowles and Gintis's (1976) assertion that vocational educators use primarily indoctrinational strategies to maintain the status quo. While most of the instructors reported using a reward structure and role modeling, the majority of instructors also reported using group discussion and one-on-one counseling. However, even though reward structure and role modeling were the only two indoctrinational pedagogical strategies used frequently by instructors, the findings suggest that some of the teachers used democratic pedagogical strategies in a rather indoctrinational manner. Thus while the literature identified group discussion and one-on-one counseling as democratic strategies, in many of the examples the instructors were actually
quite directive. As a result, identifying pedagogical strategies as either
democratic or indoctrinational became rather cloudy.

These instructors seemed to be very much aware that some students
learn differently from others. Thus while instructors did use different
pedagogical strategies to teach different work values and attitudes, they
most frequently reported using at least four pedagogical strategies to teach
any given affective cluster. The instructors preferred reward structure,
group discussion, one-on-one counseling, and role modeling. Thus favored
strategies included both democratic and indoctrinational techniques.
Instructors suggested that a democratic approach helped to establish rapport
with students and that it increased student motivation.

Implications for Education

Several implications can be identified in the present study that may
have relevance to educators. First, work values that were not identified
frequently, such as the Adaptable/Resourceful cluster, may need to be
emphasized more in the future. Although this affective cluster may not be
as critical to successful employment as other values and attitudes, future
trends indicate that it will become more important. One such trend is that
society and the work place are changing more rapidly than ever before. As a
result, it has become increasingly difficult to predict what competencies
future workers will need. Thus the Adaptable/Resourceful cluster may
contain some of the few competencies that are certain to be needed by
future workers.
Second, because the vast majority of secondary trade and industrial teachers utilize a reward structure to teach work values and attitudes, teacher educators should consider offering inservice or preservice classes on how to maximize the objectivity of reward structures. While some of the instructors had rather systematic evaluation systems, others did not.

Third, the results suggest that secondary trade and industrial teachers conduct a great deal of one-on-one counseling. The instructors explained the frequency of this pedagogical strategy by pointing out that because their classes last about two and one half hours and because they usually have no more than 20 students in a class, they are able to get to know the students better and are able to counsel students more than do most academic teachers. Thus, it is suggested that inservice and preservice teacher education preparation programs include some instruction on the fundamentals of counseling.

Fourth, while group discussion is an effective and democratic pedagogical strategy, it does have limitations. Secondary trade and industrial instructors need to be aware of the trade-offs in using group discussion so that they can maximize its effectiveness. Teacher educators may want to consider offering inservice and preservice classes that develop such an awareness on the part of instructors.

Fifth, it appeared from examples provided by cosmetology instructors that curriculum guides can assist trade and industrial instructors in the preparation of learning activities designed to teach work values and attitudes. Thus, it may be advantageous to incorporate such a unit on affective instruction into other trade and industrial curriculum guides.
Recommendations for Further Research

It was sometimes not clear from the data gathered how democratic or indoctrinal an instructional practice was even after the pedagogical strategy was identified. Thus future studies may need to incorporate shadowing or participant observation to gain insight into how democratic or indoctrinal a given pedagogical strategy was in a specific incident.

Second, this study focused on trade and industrial instructors. It is recommended that research be extended to include other service areas so that results may be generalized to other vocational programs. Agriculture, business, home economics, marketing, and technology education instructors tend to have more formal education than do trade and industrial teachers.

In addition, agriculture, business, home economics, marketing, and technology education instructors frequently have less occupational experience than do trade and industrial teachers. As a result, vocational teachers from these service areas may teach different work values and attitudes and employ different pedagogical strategies from trade and industrial instructors.

Third, this study focused on instructors who were identified as successful in the teaching of work values and attitudes by their administrators. As a result, one might suspect that this sample actually represents Virginia trade and industrial instructors who are above the norm in teaching work values and attitudes. To improve work values and attitudes instruction in trade and industrial programs, it would be
advantageous to also study less successful instructors to determine what areas they needed to be assisted with most.

A final recommendation is for researchers to examine whether certain pedagogical strategies are more effective for teaching work values and attitudes to specific groups of students than others. Vocational education programs are attracting more disadvantaged, handicapped, and minority members than in the past. Research indicates that one pedagogical strategy may work quite well with one population while the same strategy could have disastrous effects with another population. Thus vocational educators need to be sensitive to cultural characteristics of various ethnic groups and be aware of pedagogical strategies which are more effective for disadvantaged youth. The expansion of the present study can perhaps answer questions concerned with work values and attitudes instruction by secondary vocational teachers.


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APPENDICES
APPENDIX A

AREA VOCATIONAL & TECHNICAL SCHOOL PRINCIPAL'S TELEPHONE SCRIPT
Hello I'm Jim Gregson with Virginia Tech. I would like to speak to
Dr./Mr./Ms._____________________________ (Pause)

Good morning/afternoon Dr./Mr./Ms. ______________________________
My name is Jim Gregson and I'm a research assistant with the Division of Vocational and Technical Education at Virginia Polytechnic Institute and State University. Several days ago I sent a letter to you requesting your assistance in a study I am conducting concerned with work values and attitudes instruction by secondary trade and industrial teachers.

1. Have you received the letter?
   ____ no (I'm sorry. Let me try again. Is..... the correct address?)
   ____ yes (go to 2.)

2. Have you had the opportunity to read the letter?
   ____ no
   ____ yes (go to 3.)
3. Do you have any questions about the study?

4. Dr./Mr./Ms. _______________ would it be possible for me to interview four trade and industrial teachers on your staff who you think are successful in teaching work values and attitudes?
   ___ no - (I certainly wish you would reconsider. I really need some trade and industrial teachers representing your geographical area.)
   ___ no again - (Mr./Ms./Dr. _______________ even though your school can't participate in the study, I do appreciate you taking time to talk with me today. Keep up the good work at your school and thanks once again).
   ___ yes - Great! (go to 5.)

5. Are you prepared now to provide me with the names of the trade and industrial teachers on your staff who you would like for me to interview? (use T & I Teacher Nomination Schedule)
   ___ no - (When would you like for me to call you to obtain the nominations?)

   Return call on ___ / ___ / 1989 at ___ : ___ a.m./p.m.
   ___ yes (go to T & I Teacher Nomination Schedule)

   Dr./Mr./Ms. _______________ I really appreciate your cooperation. I will be communicating with the nominated instructors in the next few days. Let me leave you my phone number so that you can contact me if something comes up. My office phone number is 703/231-8721 and my home phone number is 703/651-4353.
It has certainly been a pleasure talking with you this morning/afternoon Mr./Ms./Dr. ______________. I look forward to talking with you again in the future.

Thanks once again and have a good day/evening.
APPENDIX B
CORRESPONDENCE WITH AREA VOCATIONAL PRINCIPALS
Date

Area Vocational Principal
Anywhere Vocational and Technical Center
000 Virginia Drive
Newtown, VA 00000

Dear Mr. Principal:

I am a research assistant with the Division of Vocational and Technical Education at Virginia Polytechnic Institute and State University. I am currently conducting a study to identify those work values and attitudes that trade and industrial instructors teach to their students and the teaching techniques the instructors use to teach them. This is an important study because business and industry seem to be satisfied with the technical skills that vocational graduates enter the work force with; however, business and industry leaders indicate that they would like to see vocational educators work more with assisting students in developing appropriate work values and attitudes (e.g. concern for quality work, cooperative, dependable, ambitious, etc.).

My research design necessitates interviewing trade and industrial teachers and I need your help in doing this. My request of you is to nominate four trade and industrial instructors on your staff who you think are successful in teaching work values and attitudes. I am asking administrators to avoid, if possible, any program duplication when nominating instructors. (Enclosed is a list of programs I consider being trade and industrial). I then would like to arrange a face-to-face interview with each of these instructors. Each interview would take about 45 minutes to complete. Whatever is said during the interview will be kept completely confidential. However, with your and the interviewee's permission, I would like to record the interview. Regardless of whether the interview is recorded, when the interview is written up in the form of a paper, fictitious names will be used to label the interviewee and the school and town where he or she is located.
The interview consists of four parts. Part I asks the instructors to state why they think they do a good job of teaching work values and attitudes. Part II requests the instructors to identify the work values and attitudes they teach and to provide a brief example of a technique or strategy they use to teach them. Part III asks a few straightforward questions about the teachers' characteristics. Part IV asks instructors to describe one event in which they believe they were successful in teaching a work value or attitude to a student, a group of students, or an entire class.

If you grant me permission to conduct these interviews, I assure you they will be conducted at times convenient to you and the trade and industrial teachers. Please consider this as an opportunity to have input on some meaningful vocational research. Enclosed is a project summary which describes the study in a little more detail. I will contact you by phone in the next several days to find out whether you have reached a decision and to answer any questions you may have about the study.

Many thanks in advance for your cooperation.

Sincerely,

James Gregson
Research Assistant

enclosures
APPENDIX C

TRADE & INDUSTRIAL TEACHER NOMINATION SCHEDULE
Trade & Industrial Teacher Nomination Schedule

1. Director’s name ________________________________

2. School ________________________________

3. Location ________________________________

Directions: Please nominate four trade and industrial teachers on your staff who you think are successful in teaching work values and attitudes. If possible, avoid any program duplication when nominating instructors.

A. 1. Instructor’s name ________________________________

   2. Occupational area ________________________________

   3. Phone number where instructor can be reached ________

   4. Times the instructor can be reached __________________

   5. Why did you nominate this instructor? ________________


B. 1. Instructor’s name ________________________________

   2. Occupational area ________________________________

   3. Phone number where instructor can be reached ________

   4. Times the instructor can be reached __________________

   5. Why did you nominate this instructor? ________________
C. 1. Instructors's name

2. Occupational area

3. Phone number where instructor can be reached

4. Times the instructor can be reached

5. Why did you nominate this instructor?

D. 1. Instructors's name

2. Occupational area

3. Phone number where instructor can be reached

4. Times the instructor can be reached

5. Why did you nominate this instructor?
APPENDIX D

TRADE & INDUSTRIAL TEACHER TELEPHONE SCRIPT
T & I Teacher Telephone Script

Dial phone number: ________________________

the secretary answers:___________

Hello I’m Jim Gregson with Virginia Tech. I would like to speak to
Mr./Ms._______________________________. (Pause)

Good morning/afternoon Mr./Ms. _________________________________.

My name is Jim Gregson and I’m a research assistant with the Division of
Vocational and Technical Education at Virginia Polytechnic Institute and
State University. I am conducting a study examining work values and
attitudes instruction by secondary trade and industrial education teachers.

As part of this study, I have communicated with your administrator
Mr./Ms./Dr. _________________. Mr./Ms./Dr. ___________________________

nominated you as a trade and industrial instructor who is successful at
teaching work values and attitudes. In addition, Mr./Ms./Dr.
_________________________ indicated that you might be willing to allow me to
interview you for this study. Mr./Ms. (teacher) ________________________

having been a building trades instructor for several years I know that you
are very busy; however, would you allow me to conduct a 45 minute to one
hour face-to-face interview with you at your convenience?

____no - (I certainly wish you would reconsider. I really need someone with
your expertise).

____ no again - (Mr./Ms./Dr. _______________________even though you can’t
participate in the study, I do appreciate you taking time to talk with me
today. Keep up the good work at your school and thanks once again).
___ yes - Great! Let's take a look at the calendar and see if we can set up a date and time for the interview.

Interview: ____________ ___ , 1989 ___ : ___ AM PM

Day ________________

Mr./Ms. ________________ I really appreciate you agreeing to take time out from your busy schedule to allow me to interview you. You should receive a follow-up letter in about ten days describing the study and the interview more fully. However, let me leave you my phone number so that you can contact me if something comes up. Once again my name is Jim Gregson. My office phone number is 703/231-8721 and my home phone number is 703/651-4353.

Mr./Ms./Dr. ________________ it has certainly been a pleasure talking with you this morning/afternoon. I look forward to talking with you again on / / at : AM PM.

Thanks once again and have a good day/evening.
APPENDIX D

CORRESPONDENCE WITH SELECTED TRADE & INDUSTRIAL TEACHERS
Date

Instructor
Anywhere Vocational and Technical Center
000 Virginia Drive
Newtown, VA 24100

Dear Mr. Instructor:

I greatly appreciate you taking time from your busy schedule to grant me an interview. Having been a secondary building trades instructor, I am familiar with the constant demands that confront you. As I stated in our recent telephone conversation, I am presently a research assistant with the Division of Vocational and Technical Education at Virginia Polytechnic Institute and State University. I am conducting a study to identify those work values and attitudes that trade and industrial instructors teach to their students and the teaching techniques the instructors use to teach them.

The face-to-face interview I have arranged with you should take about 45 minutes to complete. Whatever is said during the interview will be kept completely confidential. However, with your permission, I would like to record the interview. When the interview is written up in the form of a paper, fictitious names will be used to label you and the school and town where you are located.

The interview consists of four parts. Part I asks you to state why you think you do a good job of teaching work values and attitudes. Part II requests you to to identify the work values and attitudes you teach and to provide a brief example of a technique or strategy you use to teach them. Part III asks a few straightforward background questions. Part IV asks you to describe one event in which you believe you were successful in teaching a work value or attitude to a student, a group of students, or an entire class.

Enclosed is a project summary which describes the study in a little more detail. If you have any questions concerning the study please feel free
to ask them at the time of the interview or call me. My office phone number is 703/231-8721 and my home phone number is 703/651-4353. Thank you for your cooperation and I look forward to talking with you on August 26, 1989 at 5 p.m.

Sincerely,

James Gregson
Research Assistant

enclosure
APPENDIX F

TRADE & INDUSTRIAL TEACHER INTERVIEW SCHEDULE
TRADING & INDUSTRIAL TEACHER INTERVIEW SCHEDULE

1. Date and time: ____/____/1989 ___ : ___ AM PM
2. Interviewee's name ________________________________
3. Gender __________________
4. School ________________________________
5. Location ________________________________
6. Occupational area ________________________________

(Start)

Hello Mr./Ms. __________________. I'm Jim Gregson a research assistant from Virginia Tech. From our previous communication, you are aware that the interviews I am conducting focus on teaching work attitudes and values in trade and industrial programs. With your assistance, this study should assist in identifying the strategies and techniques used to help students prepare for and succeed in the work world.

The interview should take about 45 minutes to complete, and if it looks like we are going too long, we'll work out a compromise on what to do.

Before the interview actually begins, I would like to remind you that your responses will be kept completely confidential. However, because I sometimes have trouble reading my notes, I would like to record our conversation. Is that alright with you? (yes/no) I assure you no one else, other than myself, will hear this tape. If there is something you don't want me to record, just let me know and I'll turn off the recorder. And please feel free to interrupt, ask for clarification, or even comment about a question.

Do I have your permission to turn on the recorder? ___________
7. Mr./ Ms. __________________ you were nominated by your administrator, Dr./Ms./Mr. ________________, as a person who does a good job of teaching work values and attitudes. Why do you think Dr./Ms./Mr. ______________ perceives you as being successful in teaching work values and attitudes?

A. _____________________________________________________________

B. _____________________________________________________________

C. _____________________________________________________________

D. _____________________________________________________________

E. _____________________________________________________________

F. _____________________________________________________________

G. _____________________________________________________________

H. _____________________________________________________________
8. Now, I would like to get a list of some work attitudes and values that you teach to your students? (Could you give me an example of how you teach it? (i.e. for each work attitude and value) )

A. 

B. 

C. 

D. 

E. 

F. 

G(________________________________________)
________________________________________
________________________________________
________________________________________

H(________________________________________)
________________________________________
________________________________________
________________________________________

I. (____________________________________)
________________________________________
________________________________________
________________________________________

J. (____________________________________)
________________________________________
________________________________________
________________________________________

K. (____________________________________)
________________________________________
________________________________________
________________________________________

L. (____________________________________)
________________________________________
________________________________________
________________________________________

Great! Those examples were really informative.
Now, Mr./Ms. ______________. I would just like to ask you a few background questions.

9. How many years have you taught?
   _____ years

10. How many years did you work in industry before becoming a vocational teacher?
    _____ years

11. What is your highest level of educational attainment?
    A. _____ GED
    B. _____ High School
    C. _____ Some college studies
    D. _____ Associate degree
    E. _____ College graduate
    F. _____ Some graduate work

12. What is your age?
    _____ years

13. Are you currently a VICA advisor?
    — yes
    — no (if no skip #14)

14. What is your role as a VICA advisor? _____________________________
    _____________________________
    _____________________________
    _____________________________
    _____________________________
    _____________________________
    _____________________________
    _____________________________
    _____________________________
    _____________________________
    _____________________________
15. Now, I would like you to describe an experience in which you felt particularly successful in teaching a student or a group of students a work attitude or value. This would be a time you felt like you really helped a student's, or a group of students', employability by assisting them in acquiring a work value or attitude so that he/she/they would be more likely to succeed in the work world.

A. For the sake of confidentiality let's use either a fictitious name or just the student's first name. What particular event would you like to talk about?

(Event) ____________________________________________

_____________________________________________________________________

PROBES
specific
general

BEHAVIOR
(What you/he/she did & why)

THOUGHT/FEEL
(you/others think or feel)

EXAMPLES
(specific)

What led up to the situation?

What happened?

Describe the situation.

Who was involved and how?

How did it all turn out? (outcome)
Great! That event was just what I was looking for. Mr./Ms. __________ we have reached the end of the interview. I would like to express my appreciation for you taking time from your busy schedule. I've certainly enjoyed talking with you today. What you have contributed will go a long ways in helping this study identify ways in which trade and industrial teachers can help students acquire behaviors which will help them to succeed in the world of work.

Thanks again and have a good day.

Good-bye.
Vita

James Aaron Gregson was born March 3, 1956 in Jonesboro, Arkansas. In 1974 he graduated from Jonesboro High School, Jonesboro, Arkansas. He received a Bachelor of Arts degree in Sociology from the University of Arkansas in 1977 and a Masters of Arts degree in Vocational Administrative Education from Arkansas State University in 1987.

His professional experiences include nine years as a carpenter and cabinetmaker in the construction industry, four years teaching building trades at the Jonesboro (AR) Area Vocational School, and two years as a research assistant for the Virginia Polytechnic Institute and State University office of the National Center for Research in Vocational Education. Mr. Gregson's professional and honorary affiliations include the American Vocational Association, the National Association of Industrial and Technical Teacher Educators, the American Vocational Education Research Association, and Omicron Tau Theta.

During his tenure as a research assistant for the Virginia Polytechnic Institute and State University office of the National Center for Research in Vocational Education, the requirements for the doctoral degree in Vocational and Technical Education were completed.

James Aaron Gregson