

THE RELATIONSHIP BETWEEN COOPERTIVE EDUCATION STUDENT WORK
VALUES AND WORK SITE MANAGER'S REFERENT POWER

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By

Janet G. Spence, B.S., M.S., MBA

* * * * *

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Dissertation Committee:

Professor David S. Stein, Advisor
Professor Joe E. Heimlich
Professor M. Susan Imel

Approved by

Adviser
College of Education

ABSTRACT

The purpose of this study was to describe the relationships between: (1) the referent power of the work site manager, (2) student hours worked, (3) career objective match, (4) student/manager work value match and (5) changes in the co-op student work values. The dependent work value variables studied were: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society* 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*. A sample of 38 students volunteered for the study from a total population of 134 central Ohio, 12th grade, marketing education students. The *Maryland Work Value Inventory* (Mietus, 1977) and placement assessment instruments were administered to the subjects near the beginning and end of the academic year. Positive, statistically significant, correlations were found between the independent variable of *manager's referent power* and the work values of *money and prestige*, *status with employer*, *need* and *job advancement*. A positive, statistically significant, negative correlation was found between *student/manager work value match* and the work value of *contribution to society*. It was suggested that this negative relationship might be due to the materialistic nature of the business and marketing co-op experiences. Based on these findings, it is concluded that the referent power of the work site managers correlated to small modifications in some of

the work values of the 12th grade business and marketing co-op students. It is recommended that when developing co-op experiences for 12th grade business and marketing students it is not necessary to: (1) extend the duration of the co-op experience over 180 hours, (2) match the student's initial work values to the work site manager's work values, or (3) match the co-op experience to the student's desired career objective. Recommendations for future research are included.

To My Husband,
William A. Ivancic,
For His Support and Encouragement

And

To My Children,
Sarah, Elizabeth and Robert -
May They Be Blessed With Good Mentors

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VITA

1971	B.S., Natural Resources, Michigan State University
1976.....	M.S., Horticulture, Michigan State University
1979 -1986.....	Program Assistant/Program Coordinator Executive Education, The Ohio State University
1985.....	MBA, Marketing, The Ohio State University
1986-1989.....	Regional Marketing Director Hillhaven Corporation, Westerville, Ohio
1991-1998.....	Adjunct/Interim Professor Capital University Columbus, Ohio
1994-1995.....	Graduate AssistantConsultant International Enterprise Academy The Ohio State University
1998-2000.....	Graduate Assistant School-to-Work Workforce Development Clearinghouse The Ohio State University
2000-2001.....	Senior Program Associate Tech Prep Curriculum Development The Ohio State University

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FIELDS OF STUDY

Major Field: Education

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CHAPTER 1

INTRODUCTION

Researchers have categorized work values in various ways (Elizur et al. 1991; England, Ruiz Quintanilla, 1994; Mietus, 1977; Super, 1969). Super's *Work Values Inventory* (1969) identified fifteen specific work values: altruism, aesthetics, creativity, intellectual stimulation, independence, achievement, prestige, management, economic returns, security, surroundings, supervisory relations, associates, variety, and way of life. In his *Maryland Work Value Inventory*, Mietus (1977) identified eight specific work values: economic, altruism toward society, altruism toward employer, status, achievement, skill development, personal satisfaction, and work avoidance. England and Ruiz Quintanilla (1994) reanalyzed the data from the MOW work goal study (England, 1991) and identified three categories of goals: social, expressive, and instrumental. Similarly, Elizur et al. (1991) initially partitioned the values of his sample from USA, Taiwan, China, Korea, Hungary, Netherlands and Israel into three regions: instrumental, affective, and cognitive distinctions. In summary, the above researchers have defined work values as the *individual's motivation for working* and this *motivation for working* have been viewed as multifaceted.

Work values are linked with market participation (Lobodzinska, 1996; O'Brien & Feather, 1990), career choice (Judge & Bretz, 1992; Shapira & Griffith, 1990), job outcomes (Shapira & Griffith, 1990) and job satisfaction (Rounds, 1990). In a sample of over 4000 secondary school leavers, O'Brien and Feather (1990) found that unemployment and poor employment had a negative effect on the affective states, personal control and work values of the subjects. Lobodzinska (1996) found that working women in the formerly communist Central-Eastern European countries continued to work after the revolutions in the early 1990s for mainly non-monetary motivations. In a study of professional degree students, Judge and Bretz (1992) found that the job selection of the students' was influenced by the value system of the employing organizations. Shapira and Griffith (1990) found that the work values of engineers were similar to those of managers and different from production and clerical workers. In addition, they found that work values were related to performance outcomes, such as performance and tardiness. Rounds (1990) found in a study of 405 adults that value correspondence between the individual and the company increases employee satisfaction.

Since work values are linked to market participation (Lobodzinska, 1996; O'Brien & Feather, 1990), career choice (Judge & Bretz, 1992; Shapira & Griffith, 1990), job outcomes (Shapira & Griffith, 1990) and job satisfaction (Rounds, 1990), factors that correlate to work values should be identified. One factor that empirical studies have indicated correlates with work values is co-operative work experiences (co-op) (Grosjean, 2001; Helliwell, 1981; Intuitions Confirmed, 1999; Schreiner, 1979; Wu, 1985; Young, 1978). Schreiner (1979) compared the work values of co-operative trade

and industry students to those of working and nonworking students not enrolled in the co-operative trade and industry program. This study found co-operative trade and industry students had a higher desire for achievement and a greater desire for better manager relations. Helliwell (1981) compared work values of senior co-op vocational and non-co-op academic students. Senior co-op vocational students were found to have a broader understanding of the meaning of work, a more intrinsic value of work, and overall more positive work attitudes. Grosjean (2001) studied the perceptions of college students of their co-op program by means of a survey and in-depth interviews and found that the co-op experience shapes students' perceptions of learning and professional work. Wu (1985) found that students in co-op education programs valued contribution to society more than those not enrolled in co-op education programs. The National Employer Leadership study found that students who participate in school-to-work programs were more likely to get better grades, stay in school, go directly to college, and approach life and work with a positive attitude (Intuitions Confirmed, 1999). Young's (1978) pre- and post-test study of the effect of co-op experiences on the work values of secondary students found that co-op experiences did have a significant effect on the students' achievement work values. These studies clearly indicate that students who participate in co-op experiences have different work values than students who do not participate in co-op experiences (Helliwell, 1981; Intuitions Confirmed, 1999; Schreiner, 1979; Wu, 1985; Young, 1979). However, only in Young's (1978) study could a causal relationship between work value changes and co-op experience be deduced.

If the co-op experience affects student work values, the specific conditions of the co-op experience must affect student work values. Three studies have identified specific

conditions of the co-op experience that correlate to a change in the student's work values (Mortimer et al. 1996; Stern et al. 1997; Stone & Josiam, 2000). Two of these studies relate factors of employment to job attitudes (Stern et al. 1997; Stone & Josiam, 2000). However, since attitudes may be defined as peoples' beliefs as applied to specific situations, and values may be defined as peoples' beliefs that transcend particular situations, attitudes and values are closely related ((Hollander, 1971; Rokeach, 1973). The co-op experience work quality has been shown to affect student attitudes toward work (Mortimer et al. 1996; Stern et al. 1997; Stone & Josiam, 2000). Stone and Josiam (2000) used regression to analyze the data gathered from 1800 high school student questionnaires. These researchers found that adolescents expressed more positive job attitudes when they held jobs where SCANS skills were taught. Stern et al. (1997) found that the opportunity to learn new things and a job that is physically challenging was positively associated with work motivation, while a job that was perceived as conflicting with school was negatively associated with work motivation. Mortimer et al. (1996) using data from the St. Paul Youth Development Study found that the opportunity to use and develop skills on the job enhances both intrinsic and extrinsic occupational reward values. Only the study by Stone and Josiam (2000) evaluated the effect of the student's relationship with the work site manager on the student's work values. These researchers found that job satisfaction for adolescents was higher in work sites where they had a good relationship with their supervisor. However, the exact nature of *a good relationship with the work site supervisor* that would produce job satisfaction was not explored.

1.1 Importance of the Problem

Empirical research studies have found a correlation between co-op experiences and the work values of secondary students' experiences (Helliwell, 1981; Intuitions Confirmed, 1999; Schreiner, 1979; Wu, 1985; Young, 1978). Furthermore, empirical studies have shown that the quality of the co-op experience may have a positive affect on student work values, while the duration or intensity of the co-operative experience mattered little for occupational value development (Mortimer et al. 1996; Stern et al. 1997; Stone & Josiam, 2000). Only the study by Stone and Josiam (2000) found the relationship between the co-op student and his/her work site manager related to the student's attitudes toward work. However, neither the study by Stone and Josiam (2000), nor any other study reviewed by this researcher in a recent examination of research studies listed in the Education Abstracts (1983-present), ERIC (1966-present), PsycINFO (1967-present), ABI/Inform (1971-present), and dissertation abstracts (1861-present) have explored the nature of a relationship between the co-op student and the work site manager as it relates to student work values.

1.2 Statement of the Problem

The study by Stone and Josiam (2000) found that the relationship between the co-op student and his/her work site manager related to the student's attitude toward work. However, the nature of the relationship between the co-op student and his/her work site manager that relates to the student's attitude toward work has not been described. The purpose of this study is to describe the relationships between: (1) the referent power of

the work site manager, (2) student hours worked, (3) career objective match, (4) student/manager work value match and (5) changes in the co-op student work values.

1.3 Theoretical Basis for the Study

Situated cognition provides the theoretical base for learning during the co-op experiences. The central situated cognition concept is that cognitive skills are context bound (Perkins & Salomon, 1989). The basic assumption behind this concept is that a person's ideas, beliefs, and knowledge are connected to the sociocultural context of the person's life. The knowledge a learner gains in one context is retained in the learner's memory within the context that it is learned (Kirshner & Whitson, 1997). Situated cognition theory suggests that an individual's beliefs are learned within the sociocultural context of that individual's life. So, work values are learned within the individual's work setting.

Rokeach's belief system theory (Rokeach, 1973) provides the theoretical base for the hypothesized changes in the students work values. The central concept of this theory is that values guide behavior. A value may be defined as, "a single enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (Rokeach, 1973 p.5). Each individual's values are logically and functionally related to form their belief system that serves as a framework for all their cognitive and motivational processes. Due to the interconnected nature of values, if one value changes it will affect other values in the belief system. Personal values change when the individual is confronted with an experience that does not fit in his/her existing value scheme. This forces the individual to

reassess his/her current value structure (Grube, Mayton & Ball-Rokeach, 1994; Rokeach, 1973; Rokeach 1968 a & b).

The model of the change in student work values on page 8 shows the proposed interrelationship of the variables in this study. In this model, the measured variables are boxed, and student decisions are indicated with diamond shapes. Time one is before the student participates in the co-operative experience. Time two is during the co-op experience, and time three is at the conclusion of the co-op experience. During the co-op experience, the match between the student's work values and the work site manager's work values, the match between the student's desired career and the actual work experience, and the extent or the duration of the work experience, feed into the student's determination of the referent power of the work site manager. If: (1) the manager's work values and the student's initial work values match, (2) the student's desired career and actual work experience match, and (3) the co-op experience is sufficiently prolonged, then the manager will have referent power. If the work site manager has referent power, the student will note the differences between his/her work values and those of his/her work manager. The student will then attempt to reduce or eliminate these differences by changing his/her own work values. On the other hand, if the work site manager does not have referent power, the student will not note the differences between their work values and those of their work manager. So, if the work site manager does not have referent power, there will be no change in the student's work values.

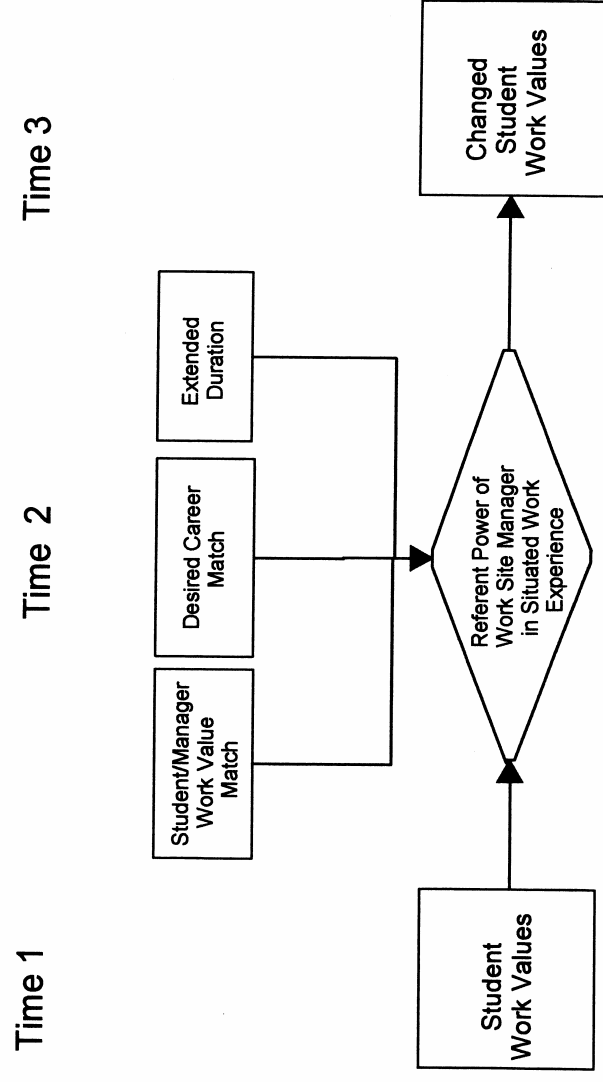


Figure 1: Initial Model of the Change in the Student Work Values During the Co-op Experience.

This model is analogous to Fishbein and Ajzen's Theory of Reasoned Action (Ajzen & Fishbein, 1969; Ajzen and Fishbein, 1970; Becker & Gibson, 1998). The TRA suggests that attitudes and subjective social norms together determine behavior. The summation of the student's work values as applied to a particular work situation could be considered the student's work attitude. When the student is exposed to the work-site manager's work values, the student's social norms may be changed. The extent to which the student's social norms are altered depends on the extent to which the work site manager has referent power, the work site manager's work values and the student's initial work values. However, Fishbein and Ajzen's Theory of Reasoned Action proposed that interaction of attitudes and social norms produce a direct affect on behavior. The model on page 8 suggests that the interaction of the student work values and the social norms of the work site manager produce a change in work values of the student. When changes in all of the different work values are applied to a particular work situation, this proposed change might be considered a change in work attitude. Then, this proposed change in work attitude may lead to a change in work behavior, but the path to behavior change is not direct.

1.4 Research Hypotheses

Hypotheses 1.1 – 1.7: The means of the following seven work values of 12th grade, central Ohio, business and marketing students as measured by the Maryland Work Values Inventory (MWVI) change during the academic year of co-op experience: 1. *satisfaction and accomplishment*, 2. *money*

and prestige, 3. contribution to society, 4. status with employer, 5. need for work, 6. avoidance, and 7. job advancement.

Hypotheses 2.1 - 2.7: The referent power of the student's work site manager correlates to changes, during the co-op experience, in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Hypothesis 3: The extent that the co-op experience of the student matches his/her career objective correlates to the referent power of the work site manager.

Hypotheses 4.1 – 4.7: The extent that the co-op experience of the student matches his/her career objective correlates to changes in the following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Hypothesis 5: The duration of the co-op experience correlates to the referent power of the work site manager.

Hypotheses 6.1 - 6.7: The duration of the co-op experience correlates to the change in the following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Hypothesis 7: The extent that the initial work values of the student match the work values of the work site manager correlates to the referent power of the work site manager

Hypotheses 8.1 - 8.7: The extent that the initial work values of the student match the work values of the work site manager correlates to change in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

1.5 Assumptions

In this study the quality of the 12th grade central Ohio, business and marketing cooperative education students work experiences are assumed to be similar.

1.6 Limitations

Generalization of the findings of this study is limited by the nature of the sample. The sample was not randomly selected and is relatively small. Due to the size of the sample, an alpha of .10 was considered statistically significant. This allows a greater chance of error than in studies with an alpha of .05.

1.7 Operational Definitions

Attitudes: People's beliefs about the extent to which specific objects or situations satisfy their individual values. Attitudes can be positive or negative (Hollander, 1971; Rokeach, 1973).

Belief: Mental acceptance of something offered as true.

Career Objective Match -match between the students' desired career objectives and the students' work placement as measured by questions 4 – 13 on the Work Placement Inventory (see Appendix C) . The scale used was an ordinal, five response Likart scale. Domain range: low 10; high 50.

Co-operative Experience (co-op) – an on-the-job work experience supervised by a high school teacher for the purpose of exposing the high school student to the career of his/her choice. This on-the-job work experience must extend over a period of no less than 3 months, for a total commitment of no less than 180 hours.

Hours Worked – this variable is the total number of hours the student worked during his/her co-operative experience during the academic year 2001-2002 as self-reported in questions 1 – 3 on the Work Placement Inventory (see Appendix C). Lowest possible number of hours for a co-op experience was defined as 180 hours.

Manager's Referent Power – this variable is the student's perception of the referent power of his/her work manager as measured by questions 14 – 23 on the Work Placement Inventory (see Appendix C). The scale used was an ordinal, five-response Likart scale. Domain range: low 10; high 50.

Mentor – an influential superior who assumes the role of teacher and advocate for the protégé. The influence of the superior is primarily based on expert and referent power.

Protégé – an individual who holds lower status than his/her mentor and who accepts the mentor as a teacher and advocate.

Social Norms – modes of behavior or thought that are generally expected in the society in which the individual lives.

Student/Manager Work Value Match – this variable is the match of the student's initial work values to the work-site manager's values. This was measured as the absolute value of the difference between the student's responses and the manager's responses to the *Maryland Work Value Inventory* as measured within the first month of the student's co-op experience. Domain range: low 192; high 0.

Value – an enduring belief transcending specific situations that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or

converse mode of conduct or end-state of existence. Values are always positive.

(Rokeach, 1973, p. 5; Schwartz, 1992, p. 2)

Work-site Manager or Manager – the employer, or a representative of the employer, who has authority over the student worker during his/her school supervised work and to whom the student directly reports.

Work Values – Beliefs about personal motivation to work extracted from student and manager scores on the Maryland Work Values Inventory. (Mietus, 1977; Wu, 1985).

Work Value Variables: All of the work values were derived from the participants' scores on the Maryland Work Values Inventory, which uses an ordinal, five-response Likert-type scale. The middle value for this scale is *undecided*. Originally, Mietus (1979) identified eight work values using the Maryland Work Values Inventory. However, Wu (1985) combined two of Mietus' work values through principal factor analysis to create seven distinct work values. To facilitate comparison between the different work values, the mean score for each of the work values was found. These mean scores ranged from 1 to 5, and were interpreted as: 1 = no importance, 2 = little importance, 3 = undecided, 4 = somewhat important, 5 = very important. This study employs the same seven work values identified by Wu (1985) as described below:

1. **Satisfaction and Accomplishment** – the relative extent to which work is valued because it provides a feeling of accomplishment. The importance of this work value is measured by responses to questions 1, 2, 5, 8, 9, 11, 13, 17, 21, 22, 26, 36 and 39 on the MWVI. Domain range: 13 to 65.

2. **Money and Prestige** – the relative extent to which work is valued because it provides financial rewards and social esteem. The importance of this work value is measured by responses to questions 4, 7, 12, 15, 19, 23, 25, 38 and 43 on the MWVI. Domain range: 9 to 45.
3. **Contribution to Society** – the relative extent to which work is valued because it positively aids society. The importance of this work value is measured by responses to questions 3, 18, 30, 37 on the MWVI. Domain range 4 to 20.
4. **Status with Employer**- the relative extent to which work is valued because it increases the employees' esteem in the employer's eyes. The importance of this work value is measured by responses to the questions 28, 40, 41, 44 and 45 on the MWVI. Domain range 5 to 25.
5. **Need for Work** –the relative extent to which people need work. The importance of this work value is measured by responses to the questions 31, 32, 33, 34 and 35 on the MWVI. Domain range 5 to 25.
6. **Avoidance** – the relative extent people work to avoid unpleasant consequences of not working. The importance of this work value is measured by responses to the questions 14, 20, 24, 27 and 42 on the MWVI. Domain range: 5 to 25.
7. **Job Advancement** – the relative extent people work to be rewarded with a more prestigious or higher paying job. The importance of this work value is measured by response to the questions 29, 46, 47 and 48 on the MWVI. Domain range: low 4 to 20.

(Mietus, 1977; Wu, 1985)

CHAPTER 2

LITERATURE REVIEW

The purpose of this study is to examine the relationships between referent power of the co-op student's work site manager, conditions of the co-op experience, and changes in the work values of the student during the co-op experience. The dependent work value variables in this study are extracted from the Maryland Work Values Inventory (Mietus, 1977; Wu, 1985). The independent variables include: the student's perception of the referent power of his/her work manager, the total number of hours worked, the match between the students' desired career objectives and the students' work placement, and the initial fit of the student's and the work-site manager's values. This literature review will present the relevant literature related to educational theory in support of, situated cognition theory, values, work values, value change, and work value change. Then, literature related to referent power of the superior, work experience hours, match of student's career objectives and work placement, and the fit of the student's and manager's work values will be discussed. When both theoretical and empirical evidence is presented, the theoretical arguments will precede the empirical studies. The following literature databases were scanned for relevant information: Education Abstracts (1983-present), ERIC (1966-present), PsycINFO (1967-present), ABI/Inform (1971-present),

and dissertation abstracts (1861-present). Key search words and phrases included, but were not limited to: attitudes, values, work values, mentor, protégé, situated cognition, school to work, internship, work experience, situated learning, vocational preference, work motivation, work ethics, service learning, experiential education, career development.

2.1 Situated Cognition Theory

The situated cognition paradigm is the substrata on which this research project is built. The situated cognition theory, as originally conceptualized by Jean Lave, asserts the interaction between problem formation and problem solving. Problem formation is bounded by the social system in which the problem exists. Tools (of the trade) can only be fully understood and purposeful through use (Griffin & Griffin, 1996; Lave, 1982). Or, to paraphrase, cognitive skills are context bound (Perkins & Salomon, 1989). If the skills to be taught were job related, situated cognition theory would support the need to learn those skills on-the-job. This theory suggests learning is a sociocultural phenomenon rather than the outcome of an assertive individual action (Kirshner & Whitson, 1997). Learning is believed to be occurring with every behavior (Clancey, 1997). Furthermore, the knowledge the learner gains in one context is retained in the learner's memory within the context that it is learned (Kirshner & Whitson, 1997).

Situated learning is grounded in four major premises for: 1) learning is grounded in the sociocultural environment in which it occurs, 2) knowledge is transferred when the learning environment and the application environment are similar; 3) knowledge is the result of a social process; and 4) individual learning is the natural result of life

experiences (Anderson, Reder, and Simon, 1996; Stein, 1998; Wilson, 1993). Situated learning instructional strategy proposes that learning should be imbedded in ‘authentic activities’ or natural activities of the profession in which the desired knowledge is found (Brown, Collins & Duguid, 1989a). Learning content is inherent in the performance of the situated task, not separated from the real world environment (Lankard, 1995; Stein, 1998). Situated cognition theorists describe well-developed learning in context as *robust*, and book-learning as *inert* (Griffin & Griffin, 1996). Theorists suggest that learners should be paired with a more experienced learner or a mentor as they begin to learn a new skill or concept (Brown et al., 1989; Collins, Brown, & Newman, 1989; Farnham-Diggory, 1992). This is the fundamental justification for early work experiences.

Students are expected to learn more from the work environment than can possibly be taught to them in sanitized packets of information. Brown, Collins & u (1989) refer to this immersion of the learner into the professional culture as a cognitive apprenticeship.

Situated learning theory emphasizes co-operative and participative teaching methods. Learning occurs as an outcome of environmental cues and dialog with the learning community (Stein, 1998). Lave (1997) suggests that learning occurs in a two-step process: 1) the learner observes the master(s); and 2) the learner refines their knowledge by practicing the skills they have observed. Through social interaction with the ‘community of practice’ or learning community, learners interpret their work culture. (Brown, 1994; Lave & Wenger, 1991; Stein, 1998) In its application to co-operative experiences, situated learning theory underscores the importance of contact with the master during the learning process and the student’s participation in *authentic* professional activities. In fact, if the student does not have close association with the

master and is not involved with authentic professional activities, then the student is not truly an apprentice but simply an employee.

A number of anthropological studies have supported the basic tenets of situated cognition paradigm (De la Roche, 1985; Griffin, 1995; Lave, 1982; Murtaugh, 1985; Scribner, 1985). Lave's original study was of the tailoring apprenticeships in West Africa (Lave, 1982). In this study, Lave noted that the apprentices gradually took on greater tailoring responsibilities while observing the master tailors. Several studies have dealt with ordinary people ability to solve mathematical problems in real life situations verses in school (Murtaugh, 1985; De la Rocha, 1985; Scribner, 1985) Murtaugh studied procedures used by twenty-four supermarket shoppers to solve arithmetic problems and found that they could not be understood apart from the ways that problems were formulated (Murtaugh, 1985). De la Rocha (1985) discovered that ten Weight Watcher program participants used either precise food measurements or customized food measurements (filling to the same position in a glass) depending on the situation. Scribner (1985) in a study of thirty-five dairy workers and consumers demonstrated that their recall and organization of dairy products was dependant on the individuals' occupation. More recently, Griffin (1995) found that students who learned to read maps through a situated cognitive approach performed equally well on a written assessment and better on a performance assessment than those who learned to read maps through conventional instruction.

However, Griffin and Griffin (1996) in a follow-up study of map reading instructional approaches for fourth graders found that those taught using conventional approaches scored higher on the immediate evaluation of map reading abilities than those

instructed using situated-cognition approach. But, in the delayed evaluation of the two groups map reading abilities, their scores were equivalent. Griffin and Griffin suggested that their unexpected findings might be partially due to the fact that conventional learners were allowed to work in pairs while situated cognition learners were not. Also, in the follow-up study the primary teaching and testing for both groups took place inside buildings, while in the original Griffith (1995) study, teaching and testing took place outside.

Since most of the empirical research supporting the situated cognition theory has been conducted on the ability of ordinary people to solve mathematical problems, the question may be asked why situated cognition theory may be applied to learning work values. In response to this question, both work values and mathematical problems have abstract and concrete aspects, but are conventionally taught (if taught at all) abstractly. Also, since it has been demonstrated that work values differ by occupation, work values can be considered situated within a bounded social system (Ross, Schwartz, & Surkiss, 1999). This suggests that there is an interaction between the situation in which the individual forms work values, and the individual's ultimate work values.

2.2 Life Values

The dependent variables in this study, work values, have been shown to be related to life values (Elizur and Sagie, 1999; Ros, Schwartz, and Surkiss, 1999). For this reason, a discussion on the life values literature has been included in this literature review.

In this study, a value is defined as “A single enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (Rokeach, 1973 p.5). It is similar to Super’s definition of a value as “an objective, a psychological state, a relationship, or material condition that one seeks to attain” (1980, p.130). In contrast, Hofstede’s (1980) definition of values as “a broad tendency to prefer certain states of affairs over others” is more general than Rokeach’s or Super’s definition.

Rokeach (1973) suggested that there were two kinds of values: instrumental and terminal values (Rokeach, 1973). Instrumental values are beliefs about the desirable modes of conduct; while terminal values are beliefs about the desirable end states of existence. Furthermore, Rokeach believed there are two types of instrumental values: moral values and competence values. Moral values are beliefs about an absolute right and wrong mode of conduct within society. Competence values are beliefs about the preferred means of self-actualization. Rokeach indicated that there were a total of sixty to seventy-two distinct, identifiable instrumental values. In addition, he identified two types of terminal values: personal and social. Personal terminal values are self-centered, and social terminal values are society centered. Rokeach indicated that the number of alternate terminal values was limited to about eighteen because there are only a limited number of end-states to which to strive (Rokeach, 1973).

Applying Rokeach’s terminology, student value changes due to co-operative experiences are expected to be changes in the instrumental competence values and the personal terminal values. Changes in the students’ value of education may be classified, as changes in instrumental competence values because these values deal with the students

preferred means of self-actualization. Changes in the students' values related to career selection may be considered changes in personal terminal values because they are based primarily on concerns for the individual well-being.

In conflict with Rokeach's theoretical differentiation between instrumental and terminal values, Schwartz (1992) failed to detect significant differences between terminal and instrumental values. This researcher identified ten motivationally distinct types of values that he suggested were recognized by members of most societies and encompassed the different types of values that guide societies. These values are: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. Schwartz suggested that these ten types of values were related to each other in a specific order. Values related to *openness to change* are set in opposition to values related to *conservation*, and values related to *self-enhancement* are set in opposition to values related to *self-transcendence*. Some of the values are compatible, while others are in conflict. So, Schwartz indicated that actions taken in pursuit of one of these ten values might have psychological, practical, and social consequences in conflict with the pursuit of other values. For example, the pursuit of benevolence values may be in conflict with the pursuit of achievement values. Schwartz deduced that there were only three universal requirements with which all individuals and societies cope: individual's needs, social interaction of group needs, and societal needs (Schwartz, 1992, 1994). Schwartz's theory of basic human values incorporated Hofstede's (1980) earlier classification system for values in society in which values were grouped according to their individualistic or collectivistic orientations.

According to Rokeach (1973), each individual has a unique value system. The individual's value system is composed of all of the different values of an individual, the relative order of those values, and the over-all importance of the values to the individual. Value change occurs when individual revise their values, the priority of their values, or the over-all importance of their values (Rokeach, 1973). Applying this theory, student worker value changes may reflect all three of the types of value change. Student workers may totally change their work values, reprioritize their work values, or revise the relative importance of their work values.

The concepts of attitudes, social norms, and interests can be clearly differentiate from values. First, an attitude refers to an organization of several beliefs around a specific object or situation (Rokeach, 1968a, 1968b). In contrast, a value refers to a single, specific belief (Rokeach, 1973). Similarly, Schwartz differentiated values from attitudes by noting the generalized nature of values verses the application specific nature of attitudes (Schwartz, 1992). Hollander (1971), on the other hand, specified that attitudes are peoples' beliefs about specific objects or situations. So, an attitude is the combination of several values directed toward a specific object. For example, the student workers may have the value that hard work will pay off financially. But their attitude toward work, *work is good*, may include other work related values such as work is morally right. On the other hand, social norms may be differentiated from values because they refer strictly to a mode of behavior in a particular situation. In contrast, values may refer to either a mode of behavior or an end-state of existence and are much more generalizable in their application than social norms (Rokeach, 1973). For example, a student worker's social norm may be that one should start work by 9 a.m., however,

his/her related value might be that one should be on time. Interests are applied to specific things, people or ideas, as attitudes are, but are more specific than attitudes (Dawis, 1991). In addition, interests do not reflect a shared social standard, as values do (Roe & Ester, 1999). For example, a student intern may be interested in becoming a veterinarian, and he/she may hold the attitude that it is good to take care of animals. The related value might be that it is good to take care of living things.

In contrast to values, traits are viewed as totally fixed. Empirical trait research tends to correlate trait to trait rather than to study changes in traits (Rokeach, 1973). Rokeach (1973) attempts to relate the concepts of values and traits by explaining that values are the internal beliefs that cause the individual to exhibit certain traits. However, if this were the case, then logically traits would have to change as values do. The fact that traits are viewed as fixed and values are viewed as changeable is the primary reason for focusing this study on values. The purpose of the study is to analyze student workers' value changes due to their co-operative experience. Since the dependent variable in the study has to do with change, it is appropriate to use a value scale.

2.3 Work Values

The dependent variables in this research study are work values as measured by Miettus' *Maryland Work Value Inventory* (Appendix B). These variables are: satisfaction and accomplishment, money and prestige, contribution to society, status with employer, need for work, avoidance, and job advancement. Since work values are an essential part of this study, a discussion of the work value literature follows.

The relationship between life values and work values has been described in different ways. Elizur and Sagie (1999) viewed work values as a structurally related subset of life values. Life values are described as the broad mouth of a cone or funnel, and work values are described as near the pointed end of the same cone or funnel. (Elizur & Sagie, 1999). In contrast, Roe and Ester (1999) suggest that general values (life values) and work values are separate, interacting components of the individual's value system. These authors propose that the interaction of work values and general values produces work activity at the country, group and individual level (Roe & Ester, 1999). Kallenberg (1977) theorized that the following social factors influenced the development of work values: (a) life experiences which occur prior to the individual's entry into the labor force, (b) nonwork social roles which define socially acceptable significance for work, (c) work experiences that affect the mature workers evaluation of potential rewards of work (p.141).

Empirical research supports the view of work values as related to life values. Elizur and Sagie (1999) collected data from 165 Israeli manager and workers to test a multi-facetted definition of personal values incorporating both life and work values. Smallest-space analysis of their data revealed a three-dimensional conical structure. Life and work values were found to occupy two distinct regions, and both could be partitioned further according to the modality (material, affective, and cognitive) and focus (focused and diffuse) facets of personal values. Health, happiness, and love were the most important life values; while job interest, responsibility and a fair manager had the highest rank order in work values hierarchy. In a study done by Ros, Schwartz, and Surkiss (1999), a sample of 999 Israelis completed an abbreviated version of the Schwartz Value

Survey (Schwartz, 1992). In addition, participants completed a ten-item work value survey designed by the researchers to reflect the four value categories in the Schwartz Value Survey (Schwartz, 1992). Results supported the hypothesis that work values are an expression of basic personal values.

The centrality of work values in modern society is the subject of two recent studies (England, 1991; Schwartz, 1999). The MOW International Research Team (1987) defined work centrality as the importance and significance of work in a person's total life. Their index of work centrality included both a general question about the importance of work and a question about the importance of work relative to four other life areas-leisure, community, religion, and family. The MOW team also studied the goals values promoted and the societal norms they define. Schwartz's (1999) cross-cultural study demonstrated that work is likely to be experienced as central to life more in societies where Mastery and Hierarchy values are important and less in societies where Affective Autonomy, Egalitarianism, Harmony, and Conservatism values are important. Respondents from every inhabited continent completed the Schwartz (1992) Value Survey. Analysis of data from the U.S., Japan and Germany indicated that the majority of Schwartz's hypotheses were supported. In the United States, Mastery and Hierarchy values are important, so work values are experienced as central to life in this society (Schwartz, 1992).

Empirical researchers have categorized work values in various ways (Elizur et al. 1991; England, Ruiz Quintanilla, 1994; Ross, Schwartz, & Surkiss, 1999; Schwartz, 1999; Super, 1969). Super's "Work Values Inventory" (1969) identified fifteen specific work values: altruism, aesthetics, creativity, intellectual stimulation, independence,

achievement, prestige, management economic returns, security, surroundings, managery relations, associates, variety, and way of life. England and Ruiz Quintanilla (1994) reanalyzed the data from the MOW work goal study (England, 1991) and identified three categories of goals: social, expressive, and instrumental. Similarly, Elizur et al. (1991) initially partitioned the values of his sample from USA, Taiwan, China, Korea, Hungary, the Netherlands and Israel into three regions: instrumental, affective, and cognitive distinctions. Instrumental values were similar to extrinsic values and affective values were similar to social and relational variables. However, data collected from participants in eight different countries indicated that intrinsic values could be meaningfully subdivided into the categories of prestige values and intrinsic values. Ross, Schwartz, and Surkiss (1999) in a sample of 179 Spanish secondary school teachers and 193 education students found that both groups rated self-transcendence values most important, openness to change values second, self-enhancement values third, and conservation values last. However, for students, the importance of work was associated with the importance of all four of the higher order value types, while the importance of work for teachers was associated with self-transcendence values and conservation values.

Work values have been found to relate to the demographic variables of age and gender. Wu's (1985) study of the work values of college students found that female students were significantly more likely to value *contribution to society* than male students. Also, age was negatively correlated to all seven of the work values in Wu's (1985) study. Similarly, Murphy (2000) in a crossgenerational study found that nine of the twelve work values studied were negatively correlated with age, while only one of the twelve work values were positively correlated with age. Females rated eleven of the

twelve career values to be significantly more important to them than males did.

However, Murphy (2000) did not find career values were impacted significantly by dependent status or income status.

The relationship between institutional/employee value congruence and employee work values has been the subject of several recent studies (Adkins, 2000; Chaves, 2000; Kaskel, 2000). Kaskel (2000) found that person-department value congruence was significantly positively correlated to employee satisfaction, and value congruence was a significant predictor of satisfaction. Demographics were found not to moderate the relationship between congruence and satisfaction. Compensation, departmental status, and home-life satisfaction were not perceived to be important antecedents to perceptions of satisfaction at work. Chaves (2000) study of the work values of 192 sales personnel found that individuals who espoused more uncertainty avoiding values exhibited higher levels of satisfaction. Also, person-organization fit on Hofstead's Power Orientation significantly predicted job satisfaction and organizational commitment. Individuals who espoused more collectivist and aggressive goal behavior values exhibited greater levels of organizational commitment. Adkins' (2000) study of employee work values within a consulting group found that both the individual's value fit within their competency group and within their organization were significant predictors of job satisfaction and intent to stay with the organization. Further support for the correlation between the congruence of values and interests of the individual and their work environment, and the individuals work satisfaction is provided by Ton and Hansen (2001) in their study of 181 married and working full-time adults. In addition, Ton and Hansen (2001) found that work satisfaction mediates the relationship between values and interests congruence and work

motivation. However, Sinar (2001) in a study of the moderating effect of value centrality on person-environment congruence for employees in two manufacturing companies obtained mixed results.

2.4 Life Values Change

Since work values are a subset of life values, then it is important to understand how life values may be changed in order to understand how work values may be changed (Elizur and Sagie, 1999; Ros, Schwartz, and Surkiss, 1999). In the following paragraphs, both theoretical and empirical studies of life value changes are discussed.

Rokeach (1968a, 1968b) proposed that an individual's values change due to a basic human need for internal consistency among beliefs and behaviors. Rokeach suggested that cognitive and behavioral changes resulted from the need to maintain balance or congruence among the elements of the belief system (Rokeach, 1968a, 1968b). Ball-Rokeach et al. (1984) indicated that the primary impetus for change in belief systems was to maintain and enhance positive self-conceptions. These two explanations of the cause of value changes are consistent, if interpreted as the primary impetus for change in beliefs is to maintain internally consistent beliefs and behaviors that enhance positive self-conceptions.

Values may be changed through value self-confrontation (Grube, Mayton & Ball-Rokeach, 1994). People continually evaluate whether their values and actions are consistent with their ideal self-concept. If an individual finds that his/her values fail to meet his/her ideal self-concept, he/she becomes self-dissatisfied. To bring these values

back into line with his/her ideal self, the individual changes his/her values (Grube, Mayton & Ball-Rokeach, 1994).

Research has shown that changes in value priorities take place when a person is confronted with the fact that his/her values are inconsistent with the values of his/her significant others. Rokeach (1973) found that when students discovered that their value priorities reflected the value priorities of undesirable groups, such as racists and uneducated, the students changed their value priorities. The students' values changed after they were presented them with information concerning their own and significant others' values and behaviors (Rokeach, 1973). This study was supported by other studies on political value change that showed a single value self-confrontation treatment could result in value changes (Rokeach & Cochran, 1972; Rokeach & McLellan, 1972)

From the service learning field, there are four studies that demonstrate a positive relationships between the applied field education of adolescents and their positive attitudes toward service work (Conrad & Hedin, 1981; Giles and Eyler, 1994; Hamilton & Fenzel, 1988; Newman & Rutter, 1989). Conrad and Hedin (1981) evaluated the psychological, social and intellectual growth of 300 adolescents involved in ten different community service programs. Newman and Rutter (1983) measured the social development of 150 adolescents who participated in community service projects. Both of these studies found that the participation in the service projects had a small, but positive impact on the adolescent's altruistic values. Conrad and Hedin (1981) found that the psychological, social and intellectual growth of participants was greater than that of the control group. Newmann and Rutter (1984) found that the involved adolescents gained a sense of greater social competence. However, Newman and Rutter (1984) emphasized

the modesty of their effect – only 1.5 percent on a five-point scale. The follow-up study by Hamilton and Fenzel (1988) with 44 adolescents involved in twelve different projects confirmed the findings of these earlier studies. Participants in Hamilton and Fenzel's study made small but significant gains on the Social Responsibility subscale. (Hamilton & Fenzel, 1988). Giles and Eyler (1994) studied the impact of an eight week service learning experience on 56 undergraduate students. They found that after completing the service learning internship, participants scored significantly higher on the following values: community involvement importance, become a community leader, and important/influence politics. However, the results may reflect a testing effect since subjects took the same values questionnaire twice in an eight week period. In addition, the results may reflect the classroom work the five weeks prior to the field work.

The limited impact of these service experiences on the attitudes of the adolescent volunteers can be attributed to a number of factors. First, in each of these studies volunteers participated in a wide-range of service projects. The only attempt to relate the type of service project the intern was involved in to the outcome was in the Hamilton and Fenzel study (1984). In this study it was found that volunteers in community improvement projects gained more than those in child care projects (Hamilton & Fenzel, 1984). Second, there is no attempt to relate the number of contact hours of the volunteer service to the changes in the participants' attitudes. Typically, service experiences in these studies were eight weeks long. This is a short period of time to change attitudes. Finally, in all of these studies the participants were volunteers who may have started with relatively high altruistic values. This limits the potential increase in their altruistic values.

2.5 Work Values Change

This study is based on the assumption that it is possible to change secondary student work values. If this assumption were not valid, then conditions within the co-operative experience would have no affect on the students work values. For this reason, a discussion of the literature on work value stability follows.

Two studies have shown work values to be relatively stable for secondary students (Diploye & Anderson, 1959; Gribbons & Lohnes, 1965). Diploye and Anderson (1959) studied the values of 1,131 ninth- and twelfth-grade high school students in New York. Results of this study indicated that the values were generally well formed by grade nine and remained constant during the high school years. Gribbons and Lohnes (1965) conducted a longitudinal study of the work values of 111 boys and girls from grades eight through twelve. They found that the rankings of work values remained relatively constant over this period of time with satisfaction and interest consistently being ranked first and second.

In contrast to the above findings, three studies have found shifts in the work values of secondary students (Kapes & Strickler, 1975; Walsh et al, 1996; Young, 1978). Kapes and Strickler (1975) conducted a longitudinal study of change in work values between ninth and twelfth grades as related to high shool curriculums. These authors concluded that school curricula reinforced a set of work values and challenged other values. Young's (1978) study of work values of 204 secondary students utilized a pretest/posttest design. This study found that the co-operative experience did have a significant affect on the achievement work values scores of the students. Walsh et al

(1996) studied age level differences in work values of 323 Hispanic and African American students enrolled in the 9th grade, 12th grade, or college. This study concluded that students differ according to grade level on work values. College students placed less value on prestige and physical prowess than 9th grade students. In addition, college students valued variety, authority, and working conditions less than those in 12th grades. Twelfth grade students were found to value personal development and ability utilization more than 9th grade students (Walsh et al , 1996).

2.6 Referent Power of the Superior

The referent power of the work-site manager over the co-operative student is the main independent variable in this study (*manager's referent power*). As discussed in the following paragraphs, this referent power is anticipated to be strongest in a mentoring relationship. For this reason, a discussion of the literature on referent power and mentoring is included in the following paragraphs.

Shapiro, Haseltine and Rowe (1978) suggested that a mentoring relationship represents the extreme end of an advisory/support relationship. These authors described a continuum of support and managery roles from peer pal to mentor as follows:

Peer pal – a fellow employee who is at the same level and shares information, strategy, and mutual support

Guide – a near peer who can explain the system, but does not have sufficient power in the organization to back the protégé.

Sponsor – a superior who has limited power to shape the career of the protégé.

Patron – an influential superior who uses his/her power to shape the career of the protégé.

Mentor – an influential superior who assumes the role of teacher and advocate for the protégé.

This perspective on mentoring relationships was validated in a study by Anderson and Devanna (1980) who found that MBA Graduates from Columbia University Graduate School of Business could classify meaningful work relations according to the roles described in Shapiro, Haseltine, and Rowe's (1978) article.

A manager's relationship to his/her subordinate on the mentoring continuum is determined by both the amount of power the manager holds to shape the subordinate's career and the type of power the manager exerts over the subordinate. Shapiro, Haseltine, and Rowe (1978) clearly differentiated peer pal, guide, sponsor and patron by the degree to which they held power over the career development of the protégé, with the patron being the most powerful of these positions. However, positions of patron and mentor are not differentiated by the amount of organizational power they hold. Instead, the type of power exerted over the protégé differentiates the patron from the mentor. The mentor/protégé bond is much stronger, more personal, relationship than the patron/protégé bond.

The primary source of the mentor's power over the protégé is based on expert and referent power. French and Raven (1959) identified five bases of power:

Reward power – based on the ability to bestow money or status,

Coercive power- based on the ability to take away money or status,

Expert power – based on perceived knowledge,

Legitimate power – based on organizational position,

Referent power – based on perceived similarity.

Referent power is derived from the liking the subordinate feels for the superior due to a perceived similarity, while expert power is derived from the superior's perceived credibility in a specific domain. These powers cannot be forcefully extracted from the subordinate; instead the subordinate must bestow them on the superior. It's because of the superior's expert and reference power that the subordinate accepts him/her as teacher. Once the powerful superior is accepted as teacher, he/she assumes the mentor role (Shapiro, Haseltine & Rowe, 1978).

Gasker's (2001) empirical study of computer-mediated mentoring among social work students demonstrated the impact mentoring can have on work values. In this study a section of graduate students in a second-year practice class mentored a section of undergraduates in a beginning practice class with semester-long email communications. The undergraduates who were mentored demonstrated a measurably greater identification with social work values which was not matched by the comparison group.

2.7 Work Experience Hours

The independent variable *hours worked* was included in this study because the literature was divided on the effect of the duration of the co-op experience on the referent power of the work site manager and the work values of the student (Gore & Nelson, 1984; Mortimer et al. 1996; Rokeach, 1973; Stone and Josiam, 2000). Gore and Nelson (1984) assessed the affect of undergraduate education internships of varying duration. Seventy-nine students participated in classes varying in field work requirements from no

fieldwork required to full-time field work with weekly seminars. Students in courses with longer time periods in the field were able to more specifically identify their career objectives after the field experience. No change was found for students with no field experience (Gore & Nelson, 1984). From the study by Gore and Nelson (1984), it can be inferred that longer co-op experiences will have greater impact on students than shorter co-op experiences. However, the study by Mortimer et al. (1996) found that the hours of work mattered little for occupation value development during the high school. These findings are supported by Stone and Josiam (2000) who found that when adolescents felt a high level of conflict between the demands of school and work, they reported higher levels of cynicism about the value of work over time. This study also found that weekly job hours and weekly job income had no significant relationship to positive job attitudes. On the other hand, theory supports the importance of duration of contact as a determinant of the referent power of the work site supervisor. Belief theory indicates that the student must spend time with the work site supervisor, in order to be confronted by difference between his/her work values and the work values of the work site manager (Rokeach, 1973).

2.8 Match of Career Objectives to Work Placement

The closeness of fit between the career objectives of the student and their co-operative work placement is one of the independent variables in this study (*career objective match*). The reason for including this variable in the study is based on a study by French and Raven (1959) indicating that the referent power of the mentor is based partially on perceived similarity between the mentor and the protégé. This study leads to

the conclusion that the referent power of the mentor would increase if the career objectives of the student and of the mentor were similar.

2.9 Fit of the Student's and Manager's Work Values

The closeness of the fit or match of the student's and work-site manager's work values (*value match*) is one of the independent variables in this study. Weiss' (1978) empirical research supports the importance of matching the work values of the student and the work site manager. Weiss (1978) examined the relationship of 141 pairs of superiors and subordinates. Consideration from the superior was found to positively correlate with value similarity. Furthermore, the superior's success and competence were positively correlated with similarity only for pairs with low-self-esteem subordinates. Weiss' research findings suggest that subordinates will be more influenced by their superiors if their work values are similar.

2.10 Summary and Conclusions

In conclusion, situated cognition theory and empirical research suggests that work values may be transmitted to students through contact with their work-site managers during their co-operative experience (Anderson, Reder, & Simon, 1996; Brown, Collins & Dugid, 1989a; Brown et al., 1989; Clancy, 1997; Collins, Brown & Newman, 1989; de la Roche, 1985; Farnham-Diggory, 1992; Griffin, 1995; Kirshner & Whitson, 1997; Lave, 1982; Lave, 1997; Lave & Wenger, 1991; Murtaugh, 1985; Perkins & Salomon, 1989; Scribner, 1985; Stein, 1998, Wilson, 1993). In this study, work values are perceived as a structurally related subset of life values (Elizur & Sagie, 1999; Ros,

Schwartz, and Surkiss, 1999). Thus, Rokeach's (1973) definition of a value as, "A single enduring belief that a specific mode of conductor end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence" is applicable to work values.

The literature indicates that the referent power of the work site manager may relate to the transmission of work values from the work-site manager to the student during a co-operative experience (French & Raven, 1959). In turn, the referent power of the work site manager may be affected by the duration of the co-op experience (Gore & Nelson, 1984; Rokeach, 1973), and the match of career objectives to work placement (French & Raven, 1959), and the initial fit of the student's and manager's work values (Weiss, 1978). The purpose of this research study is to investigate the relationship between the above variables and changes in students' work values.

CHAPTER 3

PROCEDURES

The analysis of the following thirty-eight hypotheses will be addressed in this chapter:

Hypotheses 1.1-1.7: The means of the following seven work values of 12th grade, central Ohio, business and marketing students as measured by the Maryland Work Values Inventory (MWVI) change during the academic year of co-op experience: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Hypotheses 2.1 - 2.7: The referent power of the student's work site manager correlates to changes, during the co-op experience, in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Hypothesis 3: The extent that the co-op experience of the student matches his/her career objective correlates to the referent power of the work site manager.

Hypotheses 4.1- 4.7: The extent that the co-op experience of the student matches his/her career objective correlates to changes in the following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Hypothesis 5: The duration of the co-op experience correlates to the referent power of the work site manager.

Hypotheses 6.1 – 6.7: The duration of the co-op experience correlates to the changes in the following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Hypothesis 7: The extent that the initial work values of the student match the work values of the work site manager correlates to the referent power of the work site manager.

Hypotheses 8.1 –8.7: The extent that the initial work values of the student match the work values of the work site manager correlates to changes in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*,

4. *status with employer*, 5. *need for work*, 6. *avoidance* and 7. *job advancement*.

3.1 Population

The population was 134 central Ohio marketing education students. The frame for the population was a list of 36 different secondary schools that offered business and marketing education programs in the academic year 2000 to 2001. However, in the academic year 2001-2002, the Columbus Board of Education discontinued the marketing education program in all but three of the school system's secondary schools. Of the 36 different secondary schools on the frame list, 10 secondary schools offered marketing education co-operative programs in the academic year 2001-2002. The actual population size was reduced by nine since one of the Columbus secondary schools still claiming to participate in the marketing education co-operative program was in fact preparing students in *legal office training*. The instructor of the *legal office training* program decided not to participate in the study because she did not believe that her students should be classified as marketing education students. Similarly, the population was reduced by 21 because for another Columbus school the co-operative program was less than 120 hours. This school's *Video Production Institute* required only a 9-week co-operative experience. It was also questionable whether the students in the *Video Production Institute* really belonged in marketing education. In summary, the population primarily consisted of students in suburban central Ohio secondary schools (see Appendix A).

3.2 Sample

. The sample was comprised of the 38 students who volunteered to participate in this study and completed the pre- and post- Maryland Work Values Inventory, the Work Placement Inventory, and the consent form. In addition, the work-site manager of all of the co-op students participating in the study completed the *Maryland Work Value Inventory*. Five of these 38 students had no co-op experience. Data from the five students with no co op experience were only included in the analysis of the pretest/posttest student mean work values and change in student work values. So, the N value for all of the statistical tests used to evaluate the relationships between the independent and dependent variables was 33.

The marketing education teachers from 5 of the 8 schools that met the qualifications for this study agreed to participated in the study. The reasons the teachers gave for deciding not to participate in the study were as follows: 1. two teachers indicated their students did not have time to participate, 2. one teacher indicated that he did not want to further impose on the work site managers. All of the senior marketing students at each participating school were invited to participate. As an incentive to participate in the study, a prize (\$150) was given to a randomly selected participating student.

Participation in the study was defined as student submission of all required questionnaires. Forty-six of the potential 96 qualified marketing education students in the 5 participating schools completed the initial assessment instruments. If participating students were not present in class when the final work value surveys were administered, the researcher made at least three attempts to contact them at home by phone to complete the questionnaires. However, the researcher was unable to contact 7 of these students. It

was determined that one of these seven students moved out of the central Ohio area (see Appendix A).

3.3 Design

This *ex post facto* research study describes the relationship between the work site manager's referent power and changes in his/her co-op student's work values. Since two or more quantitative variables are related by a correlation coefficient, the study may be classified as a correlational research design. In a correlational research design, a causal relationship between the variables cannot be assumed. The use of statistical methods to analyze the data was justified because this study was viewed as a single random sample of all central Ohio business and marketing co-op students over time. It is not necessary for the sample size of this type of a correlational study to be extremely large. (Ary et al. 1990, p. 387-389; Merriam & Simpson, 1995, p. 61-63)

Control to some threats to internal validity has been built into the research design. The population was limited to central Ohio, 12th grade, business and marketing students. This limited any internal threat to validity due to participant geographic location, age or area of study. Unfortunately, the importance of learning new skills during the co-op experience was not measured and remains a threat to internal validity in this study. (Fraenkel & Wallen, 1993)

The external validity of this design was threatened by selection (Fraenkel & Wallen, 1993). Since all of the participants in this study were volunteers from the relatively small population of business and marketing co-op education 12th grade students in central Ohio, generalization of the findings is limited. In addition, co-op business and marketing seniors who chose to participate in this study may be significantly different

from other co-operative education business and marketing seniors throughout the country.

3.4 Mediating Variable

The co-op experience, itself, is considered a mediating variable. Neither the assignment of the students to a co-op experience nor the nature of the co-op experience was controlled. The mediating variable is similar to a treatment, but is not controlled by the researcher.

Within a month of the beginning of the students' 2000 -2001 co-op experience, the co-op teachers at the participating schools administered the Maryland Work Values Inventory to all of the senior marketing students who elected to participate in the study. Students participating in the study returned signed consent forms to the co-op marketing teacher prior to completing the pre-test instruments (see Appendix E).

Administering these instruments took less than one class period. Co-op teachers were provided with an information/instruction sheet to read to the students prior to giving them the instruments (see Appendix D). At the end of a class period, a volunteer student sealed all instruments in an envelope addressed to the researcher and returned them in at the school office to be mailed back to the researcher.

When students returned the completed instruments to the volunteer student collecting the instruments, they were given a copy of the *Maryland Work Value Inventory* to distribute to their work-site manager with a cover letter explaining the nature of the study (see Appendix G). The letter requested that work site managers complete the inventory and return it directly to the researcher in an attached self-addressed envelope.

Only two of the work-site managers responded to this initial request for information. First, the researcher followed-up with non-responsive work-site managers by means of direct mail. If the work-site managers did not complete and return the questionnaire by mail, the work-site managers completed the questionnaire by means of a telephone interview. In a few cases, the researcher personally delivered the work-site managers' questionnaires to them.

In the spring of 2002, students were again asked to complete assessment instruments. One to three weeks before the end of the school year, the researcher personally administered the *Maryland Work Value Inventory* and the Work Placement Inventory to participating students during a marketing education class period. When the students had completed the questionnaires, they placed them in a large envelope that was later collected by the researcher. In the fall of 2002, the researcher distributed to participating marketing education teachers a summary of the results of the study.

3.5 Instrumentation

Two research instruments were used in this study: 1. The Maryland Work Values Inventory (MWVI) (Appendix B), and 2. Work Placement Inventory (see Appendix C). The Maryland Work Value Inventory (MWVI) was developed by Mietus (1977), while the Work Placement Inventory was developed by the researcher. The Work Placement Inventory included questions concerning the hours the student worked, as well as the student's assessment of their placement and the referent power of their manager. Questions pertaining to the assessment of his/her placement and the referent power of his/her manager's were drawn from the literature.

Mietus (1977) developed the *Maryland Work Value Inventory* by first extracting a 110-item instrument from the literature. This instrument was administered to eighty students, and the results were subjected to factor analysis. Then, the instrument was administered to two thousand students. From these findings a revised instrument with a total of seventy-five items was developed. Additional pilot studies and validation of the MWVI by a panel of judges produced the forty-eight item inventory used in this study.

The coefficient of reliability of the instrument was analyzed by the test/retest study conducted by Mietus (1977) involving 45 high school students. No significant difference was found between the means on any of the seven subtests over a four-week period. The Pearson product correlation coefficients for each of the seven subtests for the 45 subjects ranged from .78 to .91 and exceeds minimal expectations of .5 to .6 (Davis (1971). An analysis of the inter-correlations of subscales showed none of the subscales were highly correlated and interdependent, except for Altruism-Social and Altruism-Employer ($r=.510$). So, these two MWVI subscales may not be mutually exclusive.

The stem of each item in the *Maryland Work Value Inventory* is a declarative phrase expressing a work concept. Following each declarative phrase there are five items on which the subjects must indicate their responses on a seven-point scale ranging from very strongly disagree to very strongly agree. A panel of judges sorted the statements in this instrument into eight work values.

A second instrument, Work Placement Inventory, was developed by the researcher to measure three independent variables: 1. total number of hours each student worked, 2. student's perception of the match between his/her desired career objectives

and his/her work placement (questions 4-13), and 3. student's perception of the referent power of his/her work manager (questions 14 -23). Questions concerning the suitability of the work placement and the referent power of the work-site manager were drawn from the literature (see Appendix C).

The Work Placement Inventory was tested for internal and external validity. First, a panel of experts for content validity reviewed the instrument. Experts were chosen to represent the viewpoints of work value experts, mentoring experts, and instrumentation experts (see Appendix H). In addition, at the beginning of the 2001-2002 academic year, the instrument was pilot tested for face validity by 22 co-operative marketing students at Lacotta West High School in Cincinnati, Ohio. These business and marketing students and their instructor noted that the students themselves found their own co-operative job. So, a question on the initial placement assessment was rephrased to reflect this information. The Cronbach's Alpha reliability coefficient was .81 for the career objective match section of the inventory (questions 3-13), and .85 for the referent power section of the inventory (questions 14-23).

3.6 Variables

The *Maryland Work Value Inventory* measured the work value dependent variables. Wu's (1985) principal factor analysis of the data generated by the *Maryland Work Value Inventory* yielded the following seven distinct work values (Wu, 1985). The objective of the principal factor analysis is to maximize the correlations among the original variables. This analysis greatly improves the construct validity of the

instrument. Labeling according to the common traits in the test items, Wu (1985) identified the following seven factors:

1. Satisfaction and Accomplishment – the relative extent to which work is valued because it provides a feeling of accomplishment
2. Money and Prestige – the relative extent to which work is valued because it provide financial rewards and social esteem
3. Contribution to Society– the relative extent to which work is valued because it positively aids society
4. Status with Employer- the relative extent to which work is valued because it increases the employees esteem in the employer’s eyes
5. Need for Work –the relative extent to which people need work
6. Avoidance – the relative extent people work to avoid unpleasant consequences of not working
7. Job Advancement – the relative extent people work to be rewarded with a more prestigious or higher paying job (Wu, 1985 p. 83-84)

The independent variables used in this study were the seven work values identified by Wu (1985).

The other variables for this study were drawn from the previously reviewed literature. The reason for their inclusion in the study and their measurement are described individually below.

1. Referent Power. This variable is a measure of the student’s perception of his/her relationship with his/her manager. The theoretical importance of this variable is supported in the literature of French and Raven (1959) and Shapiro, Haseltine & Rowe

(1978). It was measured as the sum of the student's scores on a series of positively and negatively worded statements about the referent power of his/her work manager. These questions were drawn from the literature. Questions 14 through 23 of the Work Placement Inventory Draft found in Appendix C were developed to measure this variable.

2. Hours Worked. This variable is a measure of the total number of hours each student worked on his/her co-operative experience. The variable *hours worked* was included in the study because the literature on the affect of this variable on the referent power of the work site manager and the work values of the student was divided (Gore & Nelson, 1984; Mortimer et al.1996; Rokeach, 1973; Stone and Josiam, 2000). In the Work Placement Inventory, subjects were asked to indicate approximately how many hours per week they worked during their supervised work experience. In addition, subjects were asked how many weeks in duration was their supervised work experience. Subjects were told not to include any weeks in this calculation in which they worked less than half their usual number of hours. Questions 1, 2 and 3 of the Work Placement Inventory found in Appendix C were developed to generate the data to measure this variable.

3 Career Objectives and Placement Match. This variable is a measure of the student's perception of the match between their desired career objectives and their work placement. Theoretical support for the inclusion of this variable in the study is found in the definition of mentor/protégé relationships as indicated in the preceding literature review (French & Raven, 1959). To measure this variable, students responded to ten statements related to the students' career objectives, the field of the work experience, and the manager's job. Student responses ranged from strongly agree to strongly disagree. A

positively stated question was paired with a negatively stated question. Questions 4 through 13 of the Work Placement Inventory found in Appendix C were developed to measure this variable.

4. Value Match. This variable is a measure of the initial match of the student's and the work-site manager's values. This variable was included in the study based on the empirical research by Weiss (1978) that found that the values of mentors and protégés were correlated. It was calculated as the summation of the absolute values of the differences between the student's responses to the MWVI subscales and the business marketing work-site manager profile.

3.7 Analysis

The analysis of the data were both descriptive and relational. Although the sample was a convenience sample of central Ohio business and marketing students in the year 2001 to 2002, it may be considered a random sample of central Ohio business and marketing students over time. T-tests and the Pearson correlation coefficient were used in this study for their sophistication of analysis. Due to the small sample size, significance as low as .1 p were noted for the T-tests. The magnitude of the correlations were categorized according to the conventions established by Davis (1971) as listed below.

.01 - .09	Negligible
.20 - .29	Low
.30 - .49	Moderate
.50 - .69	Substantial
.70+	Very Strong

The thirty-eight hypotheses posed in this study will be addressed in the following manner.

Hypothesis 1.1 – 1.7: The means of the following seven work values of 12th grade, central Ohio, business and marketing students as measured by the Maryland Work Values Inventory (MWVI) changes during the academic year of co-op experience: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

The pre-test and post-test means and standard deviations of the students' scores for the seven work values as measured by the Maryland Work Values Inventory were reported. Then, paired sample T-Tests were used to determine the statistical significance of the difference between student pre-test and student posttest work value.

Hypothesis 2.1- 2.7: The referent power of the student's work site manager correlates to changes, during the co-op experience, in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

The magnitude of the Pearson correlation coefficients for the cross-tabulation of the variable *manager's referent power* and the pretest, posttest and change scores of the seven work values were evaluated according to the Davis (1971) conventions.

Hypothesis 3: The extent that the co-op experience of the student matches his/her career objective correlates to the referent power of the work site manager.

The magnitude of the Pearson correlation coefficients for the cross tabulations of the variables *career objective match* and *manager's referent power* was evaluated according to the Davis (1971) conventions.

Hypothesis 4.1 – 4.7: The extent that the co-op experience of the student matches his/her career objective correlates to changes in the following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

The magnitude of the Pearson correlation coefficients for the cross-tabulations of the variable *career objective match* and the pretest, posttest and change scores of the seven work values were evaluated according to the Davis (1971) conventions.

Hypothesis 5: The duration of the co-op experience correlates to the referent power of the work site manager.

The magnitude of the Pearson correlation coefficients for the cross-tabulations of the variables *hours worked* and *manager's referent power* was evaluated according to the Davis (1971) conventions.

Hypotheses 6.1 –6.7: The duration of the co-op experience correlates to the changes in the following work values of the student:

1. *satisfaction and accomplishment*, 2. *money and prestige*,
3. *contribution to society* 4. *status with employer* , 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

The magnitude of the Pearson correlation coefficients for the cross-tabulations of the variable *hours worked* and the pretest, posttest and change scores of the seven work values were evaluated according to the Davis (1971) conventions.

Hypothesis 7: The extent that the initial work values of the student match the work values of the work site manager correlates to the referent power of the work site manager.

The magnitude of the Pearson correlation coefficients for the cross-tabulations of the variables *hours worked* and *student/manager work value match* was evaluated according to the Davis (1971) conventions

Hypothesis 8.1 – 8.7: The extent that the initial work values of the student match the work values of the work site manager correlates to changes in the following student work values:

1. *satisfaction and accomplishment*, 2. *money and prestige*,
3. *contribution to society* 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

The magnitude of the Pearson correlation coefficients for the cross-tabulations of the variable *student/manager work value match* and the pretest, posttest and change scores of the seven work values were evaluated according to the Davis (1971) conventions.

CHAPTER 4

RESULTS

In this chapter the findings of the study are presented in the form of tests to the thirty-eight hypotheses in Chapter 1. The results are discussed and conclusions are drawn in Chapter 5. These results should not be generalized because the study is based on a small, convenience sample. Furthermore, since statistical significance was reported at alpha of .10, a greater chance of error exists than if alpha were set at .05.

4.1 Hypotheses 1.1 – 1.7

Hypotheses 1.1 – 1.7: The means of the following seven work values of 12th grade, central Ohio, business and marketing students as measured by the Maryland Work Values Inventory (MWVI) change during the academic year of co-op experience: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society* 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Accept Hypotheses 1.1 (*satisfaction and accomplishment*), 1.3 (*contribution to society* , 1.4 (*status with employer*) and 1.5 (*need*).

Accept the null hypotheses 1.2 (*money and prestige*), 1.6 (*avoidance*), and 1.7 (*job advancement*); there is no statistically significant change in the mean of these work values.

The pretest and posttest work values of 12th grade marketing students' scores for the work values of: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance* and 7. *job advancement* as measured by the Maryland Work Values Inventory (MWVI) are reported in Table 1. Individual work values ranged from 1 – not very important to 5 – very important. The posttest means for each of the work values was higher than the pretest mean values. These findings indicate that all seven of the work values studied tend to be somewhat important for 12th grade marketing students. None of the work values studied stands out as very important or unimportant to the students.

Student Work Values	Pretest		Posttest	
	M	SD	M	SD
Satisfaction & Accomplishment	3.86	.480	4.02	.524
Money & Prestige	4.04	.524	4.11	.525
Contribution to Society	3.63	.680	3.85	.761
Status with Employer	3.94	.624	4.11	.639
Need	4.03	.623	4.22	.593
Avoidance	3.67	.570	3.79	.662
Job Advancement	3.99	.572	4.14	.569

Table 1: Student Pretest/Posttest Work Values n=38

As indicated in Table 2, there is a significant change between the pretest and posttest mean scores for the work values of *satisfaction and accomplishment*, *contribution to society*, *status with employer* and *need*. Data show that the increases in the means for the work values of *satisfaction and accomplishment* from 3.86 to 4.02, *contribution to society* from 3.63 to 3.85, *status with employer* from 3.94 to 4.11, and *need* from 4.03 to 4.22 are significant at the .10 level. Significance at the .10 level is noted in this study due to the small sample size. As explained by Degroot (1986, p. 497), with extremely large samples even minute differences in the mean will be statistically significant, and conversely with very small samples, differences in the mean must be very large to be statistically significant. So, in this study with a very small sample size, findings that are statistically significant at the .1 level are noted. There was no statistically significant change between the pre- and post- test mean work values of *money and prestige*, *avoidance*, and *job advancement*. These results show that the means of four of the seven work values measured changed significantly during the academic year 2001 to 2002. However, this change is relatively small – less than 25 percent of the difference between a work value being *not important* and *somewhat important*.

Change in Student Work Values	M Difference	SD	t	<u>p</u>
Satisfaction & Accomplishment	.17	.472	-2.19	.035*
Money & Prestige	.06	.520	-.76	.450
Contribution to Society	.22	.731	-1.83	.075*
Status with Employer	.17	.602	-1.73	.093*
Need	.19	.682	-1.71	.095*
Avoidance	.12	.676	-1.06	.298
Job Advancement	.15	.586	-1.56	.127

Table 2: Paired Samples T-Tests for Significant Differences of Student Pretest/Posttest Means n=38; * - p < .1

4.2 Hypotheses 2.1 - 2.7

Hypotheses 2.1 –2.2: The referent power of the student’s work site manager correlates to changes, during the co-op experience, in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Accept hypotheses 2.2 (*money and prestige*), 2.4 (*status with employer*), 2.5 (*need*), and 2.7 (*job advancement*).

Accept the null hypotheses 2.1 (*satisfaction and accomplishment*), (*contribution to society*), and 2.6 (*avoidance*), changes in these work values of the student during the co-op experience are not correlated to the referent power of his/her work site manager.

Moderate (Davis, 1971) and significant positive correlations were found between the change in the students’ work values of *money and prestige*, *status with employer*, *need*, and *job advancement* and the independent variable *manager’s referent power* (see Table 3). This finding underscores the importance of mentoring to the shaping of student values. The relationship between the co-op student and his/her work site manager can have an affect on the student’s work values.

	Work Value Pretest		Work Value Posttest		<i>Work Value Change</i>	
Students' Work Values	r	p	r	p	r	p
Satisfaction & Accomplishment	.17	.35	.25	.16	.12	.51
Money & Prestige	-.12	.52	.25	.16	.33	.06*
Contribution to Society	.07	.68	.25	.17	.17	.36
Status with Employer	-.27	.14	.10	.60	.37	.03*
Need	-.25	.16	.13	.49	.33	.06*
Avoidance	.13	.48	.12	.51	.01	.95
Job Advancement	-.17	.35	.24	.19	.37	.03*

Table 3: Pearson Correlation Coefficients for the Relationship Between *Manager's Referent Power* and the Student Work Value Pretest, Posttest and Change Scores n=33,
* - $p < .1$

4.3 Hypothesis 3

Hypothesis 3: The extent that the co-op experience of the student matches his/her career objective correlates to the referent power of the work site manager.

Accept hypothesis 3.

Moderate (Davis, 1971) and significant positive correlation was found between the variables *career objective match* and *manager's referent power* (see Table 4). This result indicates that when the co-op experience is matched to the student's career objective, the work site manager's referent power is higher.

	Career Objective Match		Hours Worked		Student/Manager Work Value Match	
	r	p	r	p	r	p
Manager's Referent Power	.30	.04*	.22	.11	.07	.35

Table 4: Pearson Correlation Coefficients for the Relationship Between *Manager's Referent Power* and *Career Objective Match*, *Hours Worked*, and *Student/Manager Work Value Match* n=33, * - $p < .10$

4.4 Hypotheses 4.1 – 4.7

Hypothesis 4.1 –4.7: The extent that the co-op experience of the student matches his/her career objective correlates to changes in the

following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Accept hypothesis 4.3 (*contribution to society*).

Accept the null hypotheses 4.1 (*satisfaction and accomplishment*), 4.2 (*money and prestige*), 4.4 (*status with employer*), 4.5 (*need for work*), 4.6 (*avoidance*), and 4.8 (*job advancement*). Changes in these work values are not correlated with the extent that the co-op experience of the student matches his/her career objective.

There is a statistically significant, negative, moderately strong (Davis, 1971) correlation between *career object match* and the change in the importance of the work value *contribution to society* (see Table 5). Notably, the correlation between *career object match* and this work value declines from a low positive correlation with the pretest work value scores, to negligible negative correlation with the posttest work value scores, to a stronger negative correlation with the change work value scores. This finding indicates that if the student's co-op experience is matched to his/her career objective, the importance of the work value *contribution to society* will decline. Since this work value pretest mean was positive, this finding may only be a statistical effect. Another

explanation maybe that since subjects in this study were marketing students, if their co-operative experience matched their career objective, the co-op experience probably reflected quite materialistic values. None of the other work values examined was significantly correlated to the independent variable *career objective match*. Alternately, the students may have justified co-op experiences that did not match their career objective by believing that the co-op work contributed to society. It is concluded that to increase the importance of the work value *contribution to society* for business and marketing students, it may not be best to match the student's co-operative experience with his/her career objective.

Students' Work Values	Work Value Pretest		Work Value Posttest		<i>Work Value Change</i>	
	r	p	r	p	r	p
Satisfaction & Accomplishment	.17	.34	-.05	.80	-.21	.25
Money & Prestige	.07	.69	-.02	.92	-.07	.69
Contribution to Society	.23	.21	-.19	.29	-.37	.03*
Status with Employer	.06	.74	.10	.57	.05	.79
Need	-.05	.80	-.04	.83	.01	.96
Avoidance	.05	.78	-.12	.50	-.16	.39
Job Advancement	-.02	.93	-.14	.45	-.11	.54

Table 5: Pearson Correlation Coefficients for the Relationship Between *Career Objective Match* and the Student Work Value Pretest, Posttest and Change Scores n=33,
* - p < .10

4.5 Hypothesis 5

Hypothesis 5: The duration of the co-op experience correlates to the referent power of the work site manager

Accept the null hypothesis, the duration of the co-op experience does not correlate to the referent power of the work site manager.

No significant relationship was found between the variables *hours worked* and *manager's referent power*. The Pearson correlation coefficient for this relationship was not statistically significant (see Table 4). This result indicates that the referent power of work site manager is unaffected by the hours (over 180) that the student works at the co-op experience.

4.6 Hypotheses 6.1 – 6.7

Hypotheses 6.1 –6.7: The duration of the co-op experience correlates to the changes in the following work values of the student:

1. *satisfaction and accomplishment*, 2. *money and prestige*,
3. *contribution to society* 4. *status with employer* , 5. *need for work*, 6. *avoidance*, and 7. *job advancement*.

Accept the null hypotheses 6.1 (*satisfaction and accomplishment*), 6.2 (*money and prestige*), 6.3 (*contribution to society*), 6.4 (*status with employer*), 6.5 (*need*) 6.6 (*avoidance*) and 6.7 (*job advancement*). The duration of the co-op experience does not correlate to the changes in these work values.

The Pearson correlation coefficients for the relationships between the variable *hours worked* and the change in all seven of the work values were not statistically significant (see Table 6). In order to properly interpret this data it must be remembered that the operational definition of a co-operative experience in this study required a minimum of 180 hours work experience. So, these results indicate that changes in student work values are not correlated with the number of hours co-operative work experiences, as long as the co-operative experience is over 180 hours. No inferences can be drawn about the potential relationship between co-operative experiences of less than 180 hours and changes in students' work values.

Student Work Values	Work Value Pretest		Work Value Posttest		Work Value Change	
	r	p	r	p	r	p
Satisfaction & Accomplishment	.05	.75	.10	.56	.06	.74
Money & Prestige	.07	.69	.05	.78	.01	.95
Contribution to Society	-.11	.50	-.06	.71	.04	.81
Status with Employer	.13	.45	.06	.72	.07	.70
Need	.27	.10*	.04	.81	.21	.20
Avoidance	-.17	.32	.12	.48	.26	.12
Job Advancement	.05	.75	-.07	.68	.12	.48

Table 6: Pearson Correlation Coefficients for the Relationship Between *Hours Worked* and the Student Work Value Pretest, Posttest and Change Scores n=33, * - $p < .1$

4.7 Hypothesis 7

Hypothesis 7: The extent that the initial work values of the student match the work values of the work site manager correlates to the referent power of the work site manager

Accept the null hypothesis 7; there is no statistically significant relationship between the amounts that the work values of the student match the work values of the work site manager and the referent power of the work site manager.

The Pearson correlation coefficient for the relationship between the variables *student/manager work value match* and *referent power* was not statistically significant (Table 4). This result indicates that there is not a relationship between the amount the work values of the student match the work values of the work site manager and the referent power of the work site manager.

4.8 Hypothesis 8.1 – 8.7

Hypothesis 8.1 –8.7: The extent that the initial work values of the student match

the work values of the work site manager correlates to

changes in the following student work values:

satisfaction and accomplishment, 2. money and prestige,

3. contribution to society4. status with employer , 5. need

for work, 6. avoidance, and 7. job advancement.

Accept the null hypothesis 8.1 (*satisfaction and accomplishment*), 8.2 (*money*

and prestige), 8.3 (*contribution to society*), 8.4 (*status with employer*), 8.5 (*need*)

8.6 (*avoidance*), and 8.7 (*job advancement*).

No statistically significant relationship was found between the student/manager work value match and changes in the student work values during the co-op experience.

This finding indicates that it is not necessary to consider the work values of the work site

manager when placing a student in a co-op work experience for the purpose of changing the student's work values. In this study, work site managers were not required to verbally express to the students their work values. These research findings might be different if the work site managers had been required to verbally expressed their work values to the co-op students they supervised.

Students' Work Values	Work Value Pretest		Work Value Posttest		<i>Work Value Change</i>	
	r	p	r	p	r	p
Satisfaction & Accomplishment	-.32	.07*	-.12	.50	.16	.38
Money & Prestige	-.02	.90	-.05	.77	-.03	.85
Contribution to Society	-.17	.35	-.14	.43	.01	.95
Status with Employer	-.14	.44	.00	1.0	.14	.43
Need	-.22	.21	.02	.90	.22	.22
Avoidance	-.07	.71	-.03	.89	.03	.87
Job Advancement	-.20	.27	.08	.67	.25	.16

Table 7: Pearson Correlation Coefficients for the Relationship Between *Student/Manager Work Value Match* and the Student Work Value Pretest, Posttest and Change Scores n=33,

4.9 Summary

This *ex post facto* descriptive research study examined the relationships between: (1) the referent power of the work site manager, (2) student hours worked, (3) career objective match, (4) student/manager work value match and (5) changes in the co-op student work values. On a scale, which ranged from 1 – not very important to 5 - very important, the mean pretest work values for the seven work values ranged from 3.63 (.680) for *contribution to society* to 4.04 (.524) for *money and prestige*. The mean posttest work values ranged from 3.79 (.662) for *avoidance* to 4.22 (.593) for *need*. For each of the seven work values analyzed, the mean posttest value was higher than the mean pretest value. Paired samples T-tests indicated that change in the four work values *satisfaction and accomplishment*, *contribution to society*, *status with employer*, and *need* were statistically significant. The independent variable *manager's referent power* correlated significantly with changes in the work values *money and prestige*, *status with employer*, *need*, and *job advancement*. This indicates that the personal relationship between the co-op work site manager and his/her co-op student has a direct affect on changes in the student's work values. A moderately strong, statistically significant, relationship was found between the variables *career objective match* and *manager's referent power*. This points to a tendency for the work site manager's referent power to be higher when the student's co-op experience was matched to the student's desired career. However, no positive correlations between the independent variable *career objective match* and the seven student work values studied. In fact, the only statistically significant correlation between the independent variable *career objective match* and the student work values was a negative correlation with change in the work value

contribution to society. So, despite the fact that matching the student's co-op experience to his/her career objectives increased the work site manager's referent power, it did not relate to an increase in the student's work values. The correlation between *hours worked* and *manager's referent power* was not statistically significant. Furthermore, none of the correlations between *hours worked* and changes in the seven work values were significant. There was no statistically significant correlation between the independent variable *student/manager work value match* and changes in any of the seven student work values. Neither was there any statistically significant relationship between the independent variables of *student/manager work value match* and *manager's referent power*.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter is composed of three parts: (a) summary of research, (b) conclusions, and (c) recommendations. The research summary in this chapter includes a statement of its purpose, and a description of the study's design/analysis. Then, the thirty-eight hypotheses are presented with their related findings and discussion. The recommendation section is divided into two parts: recommendations for practice, and recommendations for future research.

5.1 Purpose

The purpose of this study is to describe the relationships between: (1) the referent power of the work site manager, (2) student hours worked, (3) career objective match, (4) student/manager work value match and (5) changes in the co-op student work values.

5.2 Research Design and Analysis

This *ex post facto*, descriptive research design was selected due to the inability of the researcher to randomly assign the student subjects to co-op experiences and the relatively small sample size. A sample of 38 students volunteered for the study from a total

population of 134 central Ohio, 12th grade, and marketing education students. The frame for the population was a list of 36 different secondary school that offered business and marketing education programs in the academic year 2000 to 2001. In the academic year 2001-2002, only ten of the secondary schools on the frame offered marketing education co-op programs. At the beginning of the 2001-2002 academic year, the *Maryland Work Value Inventory* (Mietus, 1977) was administered to the volunteer student subjects. Student work values and attitudes toward their co-operative work assignment were reassessed at the end of the academic year using The *Maryland Work Value Inventory* and the Work Placement Inventory. Data were analyzed using T-tests and Pearson correlation coefficients. Due to the small sample size, statistical significance was reported at alpha of .10.

5.3 Research Findings and Discussion

In the following paragraphs, the nine research findings are listed and discussed under the related hypothesis (es). Since the study is based on a small, convenience sample, generalization of these findings are limited. In addition, since statistical significance was reported at alpha of .10, a greater chance of error exists than if alpha were set at .05.

Hypotheses 1.1-1.7: The means of the following seven work values of 12th grade, central Ohio business and marketing students as measured by the Maryland Work Values Inventory (MWVI) changes during the academic year of co-op experience: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*,

4. *status with employer*, 5. *need for work*, 6. *avoidance* and 7. *job advancement*.

Research finding 1: All the pre- and posttest importance scores for the seven work values studied were within the range of 3 – undecided, 4 – somewhat important, and 5- very important.

Research Finding 2: The mean score for the importance of the work values *satisfaction and accomplishment, contribution to society, status with employer*, and *need* increased statistically significantly during the twelveth grade year. The mean score for the importance of the work values *money and prestige, avoidance, and job advancement* did not change during the 12th grade year.

The neutral to positive pretest work values of the students reflects the historic effect of a number of different factors. It is probable that family work values, the student's socioeconomic environment, and peer groups are among the factors that affected the student's preexisting work values. Furthermore, the student's work values may be affected by previous work experiences and the relationships with work site supervisors at these previous work experiences.

The work values of 12th grade marketing education students as measured in this study are consistent with, but slightly lower than, the work values of community college students as measured in the study by Wu (1985). Wu found that the average mean values

for the work values of: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, and 6. *avoidance*, and 7. *job advancement* were 4.24, 4.56, 3.98, 4.12, 4.20, 3.82, and 4.29 respectively. In contrast, in this study the average posttest mean values for the work values of: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, and 6. *avoidance*, and 7. *job advancement* were 4.02, 4.11, 3.85, 4.11, 4.22, 3.79, and 4.14 respectively. In Wu's study, the most important work value was *money and prestige* and the least important work value was *avoidance*. It should be noted that there is a positive progression of importance ratings of all seven of the work values from the pretest values in this study, to the posttest values in this study, to values in Wu's study for community college students.

The change in the work values of *satisfaction and accomplishment*, *contribution to society*, *status with employer*, and *need* support the finding of Kapes and Strickler (1975) Walsh et al. (1996) and Young (1978) that there are shifts in the work values of secondary students. However, the changes in the importance of the work values are relatively small. In a nine-month period, the average student's work values changed less than 25 percent of the difference between "undecided importance" and "somewhat important." One reason for these relatively small changes in the student work values may be that the mean student work values were all neutral to positive on the pretests, so the potential for positive change was limited. Since these shifts in the students' work values may occur in small unilateral increments, it is unlikely that Gribbons' and Lohnes' (1965) study evaluating the relative rankings of the student work values would capture these changes.

Change in work values in this study, as in Young's (1978) study, was measured in terms of significant change in the mean work value. But noteworthy changes in the individuals' work values that were counterbalanced by opposite noteworthy changes in other individuals' work values would not affect the mean.

Hypotheses 2.1 - 2.7: The referent power of the student's work site manager correlates to changes, during the co-op experience, in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance* and 7. *job advancement*.

Research Finding 3: The change in the student work values of *money and prestige*, *status with employer*, *need* and *job advancement* correlated with the referent power of the co-op work site manager.

The personal relationship between the co-op student and his/her work site manager correlates with the change in the the student's work values. Unfortunately, this relationship is completely overlooked in many co-op programs. The co-op programs observed for this study are prime examples. Any mentoring relationships that developed between work site managers and their co-operative student employees in this study were strictly accidental. Students found their own co-op work experiences. No attempt was made by the secondary school co-op teachers to foster a mentoring relationship between

the work site managers and their co-op student employees. Work site managers were not even told that this was an important aspect of their supervisory role.

Hypothesis 3: The extent that the co-op experience of the student matches his/her career objective will correlate to the referent power of the work site manager.

Research Finding 4: When the co-op experience is matched to the student's career objective, the work site manager's referent power is higher.

Hypotheses 4.1 –4.7: The extent that the co-op experience of the student matches his/her career objective correlates to changes in the following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance*, and 7. *job advancement*

Research Finding 5: Only the change in the work value *contribution to society* was correlated to the degree that the students' co-op experience match the students' career objectives, and it was negatively correlated.

For six of the seven work values, the degree that the students' co-op experience match their career objectives had no statistically significant relationship to the changes in the students' work values. This suggests that it is the general work experience – not exposure to their chosen career – that affects the co-op students work values. So, if the

purpose of the co-operative experience is to change the students' work values, it is not necessary to match the students co-operative work experience to their career objectives.

This independent variable was included in the study based on research by Rokeach (1973) that demonstrated that changes in value priorities take place when a person is confronted with the fact that his/her values are inconsistent with the values of his/her significant others. It was reasoned that the closer the student's co-operative experience was to his/her ideal career objective, the more significant his/her work site supervisor would be to the student. This finding indicates that the co-operative experience is viewed as general work experience, not specific experience in the student's career of choice. As such, whether the co-op experience closely reflected the student's ideal career objective did not affect the relative significance of his/her work site supervisor to the student.

Hypothesis 5: The duration of the co-op experience correlates to the referent power of the work site manager.

Research Finding 6: No statistically significant relationship exists between the duration of the co-op experience and the referent power of the work site manager.

Hypotheses 6.1 – 6.7: The duration of the co-op experience correlates to the changes in the following work values of the student: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*,

4. status with employer, 5. need for work, 6. avoidance, and 7. job advancement.

Research Finding 7: No statistically significant relationships were found between the seven work values studied and the number of hours the student worked at the co-op experience.

Since the co-operative experience in this study was operationally defined as over 180 hours of school supervised work experience, from these results it can only be said that over 180 hours of on-the-job co-operative experience will not affect these student work values. It is not possible to determine whether for co-op experiences that are less than 180 hours in duration, work value changes would relate directly to hours the students worked.

Hypothesis 7: The extent that the initial work values of the student match the work values of the work site manager correlates to the referent power of the work site manager

Research Finding 8: No statistically significant relationship was found between the closeness of the fit of the initial work values of the student and the work values of the work site manager and the referent power of the work site manager.

Hypotheses 8.1 –8.7: The extent that the initial work values of the student match the work values of the work site manager correlates to changes in the following student work values: 1. *satisfaction and accomplishment*, 2. *money and prestige*, 3. *contribution to society*, 4. *status with employer*, 5. *need for work*, 6. *avoidance* and 7. *job advancement*.

Research Finding 9: No statistically significant relationships were found between the seven work values and the closeness of the fit of the initial work values of the student and the work values of the work site manager

The independent variable of *student/manager work value match* was included in this study due to Weiss' (1978) research in which he examined the relationship of 141 pairs of superiors and subordinates. In Weiss' study, consideration from the superior was found to positively correlate with value similarity. In contrast, the findings of this study indicate that the difference between the work site managers' work values and the students' initial (pretest) work values had no effect on the degree or direction of six of the seven student work values.

There are two possible explanations for the differences in the findings between Weiss' (1978) research and this research. First, Weiss (1978) studied the work values of established superior/subordinate pairs, not the change in the subordinates' work values. The subordinates in Weiss' study may not have changed their work values to be more like those of their superiors, but superiors were simply more considerate of subordinates

whose preexisting work values were more like their own. Second, in this study students and work site managers never verbalized their work values to each other. The students may never have realized that the work site managers' work values were different from their own work values.

5.4 Conclusions

From this study conclusions may be drawn about the nature of the work value changes within the co-op experience, the relationship between the conditions within the co-op experience on the co-op student work values, the desired structure of the co-op experience, and the nature of work values . Generalization of the findings of this study are limited by the small, convenience sample on which it is based. To correctly reflect the relationships between the independent and dependent variables in this study the model of the relationships requires revision.

The referent power of work site managers positively relates to minor modifications in some of the work values of their co-op students. For four of the seven work values studied, work value changes that occurred during the co-op experience were correlated to the students' personal relationship with his/her co-op work site manager. None of the other conditions within the co-op experience that were examined in this study showed as strong a relationship to so many of the students' work values. Neither the extension of the duration of the co-op experience, nor the degree that the student's initial work values and his/her work site manager's work values matched were statistically significantly correlated to change in any of the work values.

Finally, while the manager's referent power was correlated to the degree that the co-op experience matched the students career objective, the only work value that was correlated to the degree that the co-op experience matched the students' career objective was *contribution to society*. The correlation between the degree that the co-op experience matched the students' career objective and *contribution to society* was a negative correlation.

Only four of the seven of the work values included in this study changed and these changes were relatively small. This may account the conflicting results of prior studies on work value change (Diploye & Anderson, 1959; Gribbons & Lohnes, 1965; Kapes & Strickler, 1975; Walsh et al, 1996; Young, 1978). Both the study by Diploye and Anderson (1959) and the study by Gribbons and Lohnes (1965) only evaluated changes in the relative rankings of the work values using ordinal scales. Small changes in the importance of the work values that did not affect their relative rankings would not have been captured in the data for these two studies. In addition, neither study used the Maryland Work Values Inventory, so the work values measured in studies by Diploye and Anderson (1959) and Gribbons and Lohnes (1965) were different work values than those measured in this study. In contrast, the work value studies by Kapes and Strickler (1975), Walsh et al. (1996) and Young (1978), analyzed changes in work values using ratio scales. These ratio scales uncovered relatively small changes in the work values themselves, not just changes in their relative ranking. All three of these studies found changes in some of the work values of high school students over time.

Literature from three different theories explains the relationship between the referent power of the work site manager and changes in the co-op students work values.

First, one of the primary tenets of situated cognition theory is that learning is social (Anderson, Reder, and Simon, 1996; Stein, 1998; Wilson 1993). Situated cognition theory suggests that students should be paired with an experienced teacher or a mentor to learn a new skill (Brown et al., 1989; Collings, Brown, & Newman, 1989; Farnham-Diggory, 1992). In the context of the co-op experience, this more experienced teacher or mentor is the work site manager. Second, importance of the relationship between the work site manager and the co-op student is also supported by the mentoring literature (Shapiro et al, 1978; French & Raven, 1959). Shapiro, Haseltine and Rowe's (1978) study described a mentor as an influential superior who assumes the role of teacher and advocate for the protégé. French and Raven (1959) suggested that one of the primary bases of power for the mentor was referent power. It is largely because of the mentor's referent power that the protégé accepts and identifies with the mentor. In the present study, the mentor with referent power over the co-op student is the work site manager. Mentoring literature suggests that the co-op student would attempt to imitate a work site manager who had referent power over him/her (Shapiro, Haseltine & Rowe, 1978). Third, Rokeach's (1973) belief system theory supports the importance of the work site manager to the co-op student's work value change. According to this theory, individuals change their personal values when they are confronted with an experience that does not fit into their existing value scheme. During the co-op experience, students' work values may be challenged if their work values are not similar to the perceived work values of their work site managers. Belief system theory suggests that this compels the co-op student to reassess and change his/her own work values.

It is concluded that to increase 12th grade business and marketing co-op students work values, they should be paired with a work site manager with referent power over them. However, there are still many unanswered questions about the referent power of the work site manager. For example, it is not known why certain work site managers had more referent power than others. Nor is it known whether carefully selected and trained work site managers would have had more referent power over the students. In fact, it is not known how work site managers should be selected or trained to increase their referent power. These questions need to be answered with future research.

The model that was suggested in chapter one must be replaced by a model that reflects both the uniqueness of the seven work values and the more limited effect of the co-op experience and work site manager's referent power on the student's work values (p. 87). In the revised model, the *manager's referent power* only correlates with changes in the work values of *money and prestige, status with employer, need and job advancement*. The *extended duration* of the co-op experience does not correlate to the *manager's referent power*, or any work value changes. Nor does the *student/manager work value match* correlate to the *manager's referent power* or any work value changes. However, the input of the *desired career match* directly correlates to the *manager's referent power* and the *contribution to society* work value. When the co-op experience is matched to the career objective of these business and marketing students, it negatively correlates to the importance of the work value *contribution to society*. The interpretation of a situated co-op work experience in this revised model is different from its interpretation in the original model. In the revised model being *situated* has to do with whether the experience fits in the general real world of work. On the other hand, in the

original model being *situated* had to do with whether the experience related to the student's specific career objective.

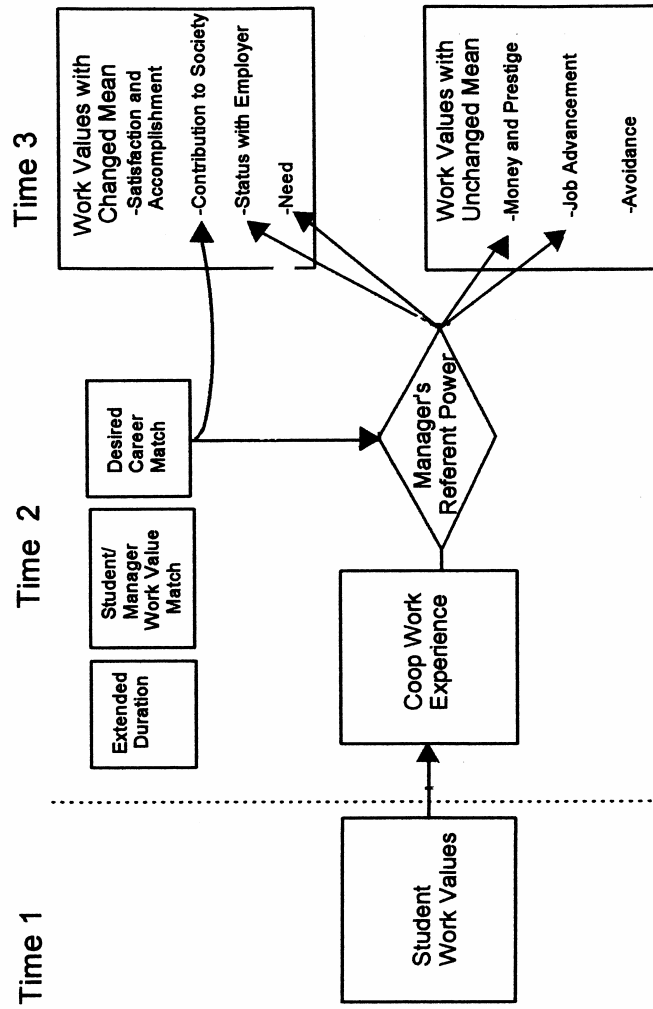


Figure 2: Revised Model of the Change in the Student Work Values During the Coop Experience.

5.5 Recommendations

Listed below are recommendations to consider when setting up business and marketing co-operative work experiences for the purpose of influencing student work values. It is important to remember that generalization of the findings of this study are limited due to the small convenience sample on which it is based. The recommendations from this study only apply when evaluating the affect of the student co-operative experience as a student work value modification method. Certainly, the student co-op experiences are valued for many other reasons. Among these reasons are: academic credit, academic retention, financial gain, increased technical skills, increased employability skills and early career entry. Whether these other objectives for student co-operative experiences are valid and achieved through co-op experiences, should be addressed by other studies.

1. It is not necessary to extend the duration of the co-op experience over 180 hours.

Since, the operational definition of a co-operative work experience specified that the students work over 180 hours. Nothing can be concluded about the specific relationship between changes in the student work values and the hours worked for co-operative experiences of less than 180 hours. However, certainly establishing a mentor/protégé relationship between the work site manager and co-op student requires some minimum period of time.

2. It is not necessary to match the business and marketing student's co-op experience with the student's career objectives.

In this study, the only statistically significant relationship between the degree that the student's co-operative experience matched his/her career objectives and changes in the student's work values was a negative relationship with changes in the work value *contribution to society*. The closer the co-op experience came to matching the student's career objectives, the more the student's *contribution to society* work value declined. One possible explanation of this finding is that it is simply a statistical effect. Since the students' *contribution to society* work value was fairly high in the pretest, the reduction in the *contribution to society* work value in the posttest may reflect the statistical tendency to return to the mean. A second explanation for this finding is that since the participants in the study were business and marketing students, co-op experiences that matched their career objectives did not emphasize *contribution to society* as a work value. If this is the case, other co-operative populations may react differently to the matching of their co-op experience to their career objectives. Another explanation for this finding is that students justified co-op experiences that did not match their career objectives by believing the co-op work at least contributed to society.

There was a positive, statistically significant correlation between the degree that the co-op experience matched the desired career and the manager's referent power. But, the desired career match did not also correlate with the three work values that correlated with the manager's referent power. So it

appears that desired career match only contributes to excess manager's referent power, not to the manager's referent power that changes work values.

3. It is not necessary to select a work site manager on the basis of his/her personal work values, if these values are not to be communicated to the co-op student verbally.

In this study, it was assumed that the work site managers would communicate their work values to the co-op students either verbally or non-verbally.

However, since the work site managers were not required to verbally communicate their work values to the co-op students, the co-op students may not have been completely aware of the work site managers' work values. Perhaps, if all the work site managers were required to discuss his or her personal work values with the student early in the co-op experience, they might have had more of an impact on changes in the student's work values.

This study has shown the need for a number of related future research studies. These studies are listed and discussed below.

1. Research to confirm the findings of this study with a larger sample size and with different populations

The findings of this study are based on a voluntary sample of 38 from a total population of 134, 12th grade business and marketing students. Despite the fact that this is a small sample of a small population, there were some

statistically significant results. However, a research study based on a larger sample of a larger but similar population would possibly uncover new findings, as well as increase the statistical significance of the findings in this study. Furthermore, the research findings in this study apply specifically to business and marketing co-operative students. Similar studies with different co-operative student populations might produce different results.

2. Research studies of the motivational affects of work values

This research study was not based on the assumption that individuals are motivated by their work values. However, certainly one of the most important reasons why researchers are interested in work values is that they believe there is a relationship between personal work values and personal motivation at work. The suggested relationship between personal work values and personal motivation at work needs further exploration.

3. Research studies to discover effective means of facilitating protégé/mentor relationships

This study found that there were statistically significant, moderately strong correlations between the student/work site supervisor relationship and changes in the work values. However, in this study, the development of these relationships was incidental to the student's co-operative program. It is important to discover how these relationships can be affectively facilitated.

4. A longitudinal research study to determine why the importance ratings of the seven work values as measured in this study were lower than the importance ratings of the seven work values as measured by Wu (1985).

The work values of 12th grade students as measured in this study were in line with, but slightly lower than, the work values of community college students as measured by Wu (1985). There are three possible explanations. First, this may be due to increased student maturity. Second, this variation may be due to changes in student work values due to history. Third, this may simply reflect work value variations between different populations. Further research is needed to determine if there are generalizable shifts in work values over a period of years.

5. A research study of the potential relationship between less than 180 hours of co-operative work experience and changes in the students work values

This study showed no statistically significant relationship between the numbers of co-operative hours students worked over 180 and changes in student work values. However, nothing can be concluded about the relationship between the number of co-operative hours students worked under 180 and changes in student work values. Further exploration of this relationship is required.

6. Research studies to determine whether other objectives for student co-

operative experiences, such as academic credit, academic retention, financial gain, increased technical skills, increased employability skills and early career entry, are valid and achieved.

Co-op experiences are time consuming for the co-op students. Considering the commitment of human resources that a successful co-operative experience requires, it is important that the reasons the co-operative experience is supported is clearly understood. Once the objectives of the co-operative experience are clarified, it will be possible to develop more effective co-operative experiences.

In conclusion, this research study found that the referent power of the work site managers correlated to small modifications in some of the work values of the 12th grade business and marketing co-op students during their co-op experience. Future research studies are needed to understand the source of the referent power of the work site managers, as well as other conditions in the co-operative education experience that may affect student work value changes.

APPENDIX A

MARKETING EDUCATION PROGRAMS
IN CENTRAL OHIO
IN 2000 -2001

MARKETING EDUCATION PROGRAMS
IN CENTRAL OHIO
IN 2000 -2001

<u>School Name</u>	<u>City</u>	<u>Participate in Study?</u>
Big Walnut HS	Sunbury	No
Buckeye Valley HS	Delaware	Yes
Beechcroft HS	Columbus	No
Bishop Ready HS	Columbus	No
Briggs HS	Columbus	No
Brookhaven HS	Columbus	No
Centennial HS	Columbus	No
East HS	Columbus	No
Fort Hayes MEC	Columbus	No
Independence HS	Columbus	No
Linden McKinley HS	Columbus	No
Marion Franklin HS	Columbus	No
Mifflin HS	Columbus	No
Northeast CC	Columbus	No
Northland HS	Columbus	No
Northwest CC	Columbus	No

MARKETING EDUCATION PROGRAMS
IN CENTRAL OHIO
IN 2000 -2001

<u>School Name</u>	<u>City</u>	<u>Participate in Study?</u>
Southeast CC	Columbus	No
Walnut Ridge HS	Columbus	No
West HS	Columbus	No
Reynoldsburg HS	Reynoldsburg	No
Westerville North HS	Westerville	Yes
Westerville South HS	Westerville	Yes
Westland HS	Galloway	Yes
Whitehall Yearling	Whitehall	No
Worthington HS	Worthington	Yes

APPENDIX B

MARYLAND WORK VALUES INVENTORY

MARYLAND WORK VALUE INVENTORY

Each item begins with an introductory phrase and is followed by a series of statements. For each item, reach both the phrase and the completion statement and then indicate what you believe most accurately represents your own feeling by circling the appropriate choice on the scale provided.

Strongly Disagree	SD
Disagree	D
Uncertain or Undecided	U
Agree.....	A
Strongly Agree.....	SA

Example:

Work values differ from person to person.....	SD	D	U	A	SA
---	----	---	---	---	----

Low **High**

A. I should work because:

- | | | | | | | |
|----|---|----|---|---|---|----|
| 1) | work can provide me with a feeling of accomplishment | SD | D | U | A | SA |
| 2) | work can provide me with the chance to acquire new skills | SD | D | U | A | SA |
| 3) | work can provide me with an opportunity to help society | SD | D | U | A | SA |
| 4) | work can provide me with the money to enjoy my leisure time | SD | D | U | A | SA |
| 5) | life would be very dull if I did not work | SD | D | U | A | SA |

B. Work will provide me with a sense of accomplishment when:

- | | | | | | | |
|-----|---|----|---|---|---|----|
| 6) | I am told by my manager or manager what a fine job I am doing | SD | D | U | A | SA |
| 7) | I earn enough from a job to live comfortably | SD | D | U | A | SA |
| 8) | I develop my skills to the fullest extent possible | SD | D | U | A | SA |
| 9) | I have used my time so as not to waste it..... | SD | D | U | A | SA |
| 10) | I gain status in the field I choose to work in | SD | D | U | A | SA |

C. A job which offers me the opportunity to display my talents is important because:

- | | | | | | | |
|-----|---|----|---|---|---|----|
| 11) | this will increase my desire to learn new skills and knowledge | SD | D | U | A | SA |
| 12) | I will make more money if given the opportunity to display my best talents..... | SD | D | U | A | SA |
| 13) | I will feel personally fulfilled if I am able to do this | SD | D | U | A | SA |
| 14) | if I am not able to do this, I will probably quickly become bored with work..... | SD | D | U | A | SA |
| 15) | this is the best way for me to achieve prestige in the field I choose to work in..... | SD | D | U | A | SA |

D. Working is especially enjoyable for me when:

- | | | | | | | |
|-----|--|----|---|---|---|----|
| 16) | I feel I am being appropriately rewarded for my efforts..... | SD | D | U | A | SA |
| 17) | I feel I am improving my job-related skills | SD | D | U | A | SA |
| 18) | I feel I am providing an important service to society | SD | D | U | A | SA |
| 19) | people close to me recognize me with added respect | SD | D | U | A | SA |

		Low			High		
	20) I feel I am not made to do "unimportant tasks"	SD	D	U	A	SA	
E.	For me, an important aspect of taking on <u>challenging</u> work is:						
	21) the pride I will feel after taking on the challenge	SD	D	U	A	SA	
	22) the contribution I will make to the organization by completing challenging tasks.....	SD	D	U	A	SA	
	23) the economic rewards I may receive from taking on challenging work.....	SD	D	U	A	SA	
	24) that this will enable me to avoid doing routine "non-challenging" work.....	SD	D	U	A	SA	
	25) that completing such tasks will probably enable me to increase my status within the company	SD	D	U	A	SA	
F.	I consider a job to be worthwhile when:						
	26) it enables me to use my abilities	SD	D	U	A	SA	
	27) it enables me to avoid feeling "being left out" or having little value as a person	SD	D	U	A	SA	
	28) it provides me with opportunities to gain status in the company	SD	D	U	A	SA	
	29) it allows me to accomplish a lot, according to my own standards	SD	D	U	A	SA	
	30) it enables me to make a contribution to society	SD	D	U	A	SA	
G.	The benefit of having a job that I know will be permanent is:						
	31) the financial security that is assured by permanent work	SD	D	U	A	SA	
	32) the opportunity for me to make a long-term contribution to a company	SD	D	U	A	SA	
	33) the satisfaction I will feel by knowing that I will always be working ..	SD	D	U	A	SA	
	34) knowing that I will not have to be troubled with finding a job at a later time.....	SD	D	U	A	SA	
	35) the chance I will have to develop my skills to the fullest extent possible.....	SD	D	U	A	SA	
H.	An important kind of satisfaction that a job can provide me with is:						
	36) the personal satisfaction I will feel after completing a day's work	SD	D	U	A	SA	
	37) the satisfaction of knowing I am making a contribution to society	SD	D	U	A	SA	
	38) the satisfaction I will feel from being about to buy things I want with my earnings and savings.....	SD	D	U	A	SA	
	39) the satisfaction I will feel by using my job-related skills	SD	D	U	A	SA	
	40) the satisfaction I will obtain from a high level position in an organization	SD	D	U	A	SA	

I Being given extra responsibilities by my employer will be important to me
 because:

- | | | | | | | |
|-----|---|----|---|---|---|----|
| 41) | being chosen over others for this work will be personally satisfying ... | SD | D | U | A | SA |
| 42) | being chosen for this extra work will help to eliminate the
monotony of everyday work..... | SD | D | U | A | SA |
| 43) | extra pay may go along with these extra responsibilities..... | SD | D | U | A | SA |
| 44) | this will enable me to make a greater contribution to my employer | SD | D | U | A | SA |
| 45) | carrying out these responsibilities successfully may lead to a job-
position advancement for me..... | SD | D | U | A | SA |

J For me, an important aspect of job advancement is:

- | | | | | | | |
|-----|---|----|---|---|---|----|
| 46) | when I have shown my coworkers and friends that I have abilities..... | SD | D | U | A | SA |
| 47) | the advancement in the skills I acquire | SD | D | U | A | SA |
| 48) | the advancement in my satisfaction with work..... | SD | D | U | A | SA |

STUDENTS - IF YOU WISH TO PARTICIPATE IN THE DRAWING FOR \$150.00, PLEASE COMPLETE THE FOLLOWING INFORMATION.

Name _____

Home Street Address _____

Home City _____ Home Zip _____

STUDENT INFORMATION (to be completed by all students)

Your Name _____

School _____

Your Home Phone _(_____)_____

Your Email Address _____

Your Marketing Teacher's Name _____

Your Work-Site Manager's or
Work Supervisor's Name _____

Your Work-Site Manager's or
Work Supervisor's Phone # (_____)_____

**WORK-SITE MANAGER INFORMATION (to be completed by work-site
manager)**

Name _____

Name of Company _____

Work Phone _(_____)_____

Email Address _____

Name(s) of 12th grade marketing co-operative students currently supervising:

(Please record the names of additional co-operative students you are currently supervising on the bottom of this page.)

Name of co-operative teacher with whom you
work: _____

Name of co-operative teacher's school:

APPENDIX C

WORK PLACEMENT INVENTORY

WORK PLACEMENT INVENTORY

All of your responses to the following questions are strictly confidential. Your individual answers will NEVER be reported to either your co-operative teacher or your work-site supervisor.

1. How many hours per week did you usually work at your school supervised work experience? _____

How many weeks did you work at your co-operative experience? (You may wish to consult the calendar. Do not include weeks that you work less than half your regular number of hours.) _____

2. How many total hours did you work at your school supervised work experience this year? (Multiply your answer to question 1 by your answer to question 2. You may use a calculator.) _____

For each statement below indicate your own personal feelings by circling the appropriate choice. There are no right or wrong answers.

Strongly Disagree - SD
Disagree - D
Undecided - U
Agree - A
Strongly Agree - SA

- | | Low | _____ | High | | | | | | |
|--|-----|-------|------|---|----|--|--|--|--|
| 3. After completing my co-operative experience, I still wonder whether or not the career I wanted at the beginning of the school year is right for me. | SD | D | U | A | SA | | | | |
| 4. My co-operative experience was in the field that I thought I wanted to be in when I started the co-operative experience | SD | D | U | A | SA | | | | |

	Low				High
5. My work-site manager's job was similar to the job I thought I wanted at the beginning of the school year.	SD	D	U	A	SA
6. My career interests at the beginning of the school year and my co-operative experience were different.	SD	D	U	A	SA
7. My co-operative experience helped me to identify what I would need to know about the career I selected at the beginning of the year.	SD	D	U	A	SA
8. My co-operative experience gave me a good exposure to the career interest I had at the beginning of the school year.	SD	D	U	A	SA
9. My co-operative experience was very different from my career interests at the beginning of the school year.	SD	D	U	A	SA
10. My co-operative teacher did a good job matching my career ambitions at the beginning of the school year with my co-operative experience.	SD	D	U	A	SA
11. My work work-site manager's job seemed very unpleasant to me.	SD	D	U	A	SA
12. My co-operative experience was in the field I was most interested in at the beginning of the school year.	SD	D	U	A	SA
13. I liked my work-site manager.	SD	D	U	A	SA
14. My work-site manager was untrustworthy.	SD	D	U	A	SA
15. My work-site manager cared about me personally.	SD	D	U	A	SA
16. My work-site manager was unlike my ideal work manager.	SD	D	U	A	SA

Low _____ High

- | | | | | | |
|---|----|---|---|---|----|
| 17. During my co-operative experience I often did things that my work-site manager disapprove of. | SD | D | U | A | SA |
| 18. When I am a manager, I would like to have the kind of relationship with my employees that my work-site manager had with me. | SD | D | U | A | SA |
| 19. My work-site manager gave me good advise. | SD | D | U | A | SA |
| 20. My work-site manager made bad decisions. | SD | D | U | A | SA |
| 21. My relationship with my work-site manager was impersonal. | SD | D | U | A | SA |
| 22. If someone confused my work with my work-site manager's, I would be flattered. | SD | D | U | A | SA |

STUDENT INFORMATION

Name _____

School _____

Co-operative Teacher _____

Work-Site Manager _____

Note:

The researcher will NEVER give your work-site manager any information about your responses to this questionnaire.

APPENDIX D

INFORMATION/INSTRUCTION SHEET TO BE READ TO STUDENTS PRIOR TO ADMINISTERING INSTRUMENTS

Information/Instruction Sheet To Be Read To Students Prior to Administering Instruments

Teacher Says:

You have been invited to participate in an Ohio State University research study on the work values of 12th grade students. Participation in this study will require that you complete assessment questionnaires in the Fall and Spring of this academic year. These questionnaires will be administered by me. It is anticipated that the completion of these questionnaires will take one class period in the Fall, and one class period in the Spring. In addition to completing these questionnaires, co-oping marketing students should discuss how the work values of their work-site manager have affected the manager's performance on the job.

Participation in this study is optional and voluntary. If you choose not to participate in this research, the you may study during the class period in which the questionnaires are administered.

By participating in this study you may assume a minor psychological or social risk. This risk is due to the fact that some of the your responses to some of the questionnaires may be considered critical of the marketing co-op teacher or the co-op work-site manger. To minimize the psychological or social risk to you, a student will be asked to volunteer to seal all of the completed instruments in this envelope (teacher holds up envelope) and return it to the high school office to be mailed back to the OSU researchers. The student responses to these instruments will never be made known to the marketing co-op teacher or the work-site manager.

However, you and the co-op work-site managers will receive information about the results of your Maryland Work Values Inventory (MWVI) later this Fall. Since the MWVI is non-judgemental in nature, there is no risk in returning this information.

By participating in this study, you will gain a better understanding of your own work values, and the work values of professionals in their chosen career. Furthermore, the findings of this study may lead to a means to change personal work values. This could lead to greater employability for future students.

As further incentive to participate in this study, all students who complete all of the necessary paper work may enter into a random drawing for a prize of \$150. All necessary paperwork includes:

1. Return of a signed and dated consent form

2. Completion of the Maryland Work Values Inventory in the Fall
3. Co-oping students must complete the Initial Placement Assessment in the Fall
4. Co-oping students complete the Work Placement Inventory and Non Co-oping students complete the Non-Co-op Work Assessment in the Spring
5. Completion of the Maryland Work Values Inventory in the Spring

(Teacher asks if there are any questions. Teacher asks for a student volunteer to collect the assessment instruments. Assessment instruments are distributed. Students complete instruments.)

FOR FALL ASSESSMENTS ONLY:

(At the end of the class period, or the next class period the teacher distributes the consent forms to be signed by the student or student's parent and the Maryland Work Values Inventory with information sheet for the Work Site Managers)

Teacher says:

I am distributing to you an assessment tool to give to your work-site manager.

If your work-site manager is supervising more than one co-op student, he/she only needs to complete the *Maryland Work Value Inventory* once. Just be sure that all of the students who he/she is supervising are on the form that is returned.

APPENDIX E
CONSENT FORM

CONSENT:

I consent to my participation in (or my child's participation in) research being conducted by Dr. David Stein and Janet Spence of The Ohio State University.

The investigator(s) has explained the purpose of the study, the procedures that will be followed, and the amount of time it will take. I understand the possible benefits, if any, of my participation (and/or my child's participation).

The investigator(s) has explained the risks, if any, and I understand what they are. No guarantees have been made regarding the effectiveness of this treatment or procedure.

I know that I can (and/or my child can) choose not to participate without penalty to me (or my child). If I give my consent to participate, I can (and/or my child can) withdraw from the study at any time, and there will be no penalty.

I have had a chance to ask questions and to obtain answers to my questions. I can contact Janet Spence at (614) 263-3865 or Dr. David Stein at (614) 292-0988. If I have questions about my rights as a research participant I can call the Office of Research Risks Protection at (614) 688-4792.

I understand in signing this form that, beyond giving consent, I am not waiving any legal rights that I might otherwise have. My signature on this form does not release the investigator, the sponsor, the institution, or its agents from any legal liability for damages that they might otherwise have.

I have read this form or I have had it read to me. I sign it freely and voluntarily. A copy has been given to me.

Print the name of the student:

Date:

Signed:

(Participant)

Signed:

(Principal Investigator or his/her authorized representative)

Signed:

(Person authorized to consent for participant, if required)

APPENDIX F

LETTER TO CO-OPERATIVE TEACHERS
CONFIRMING PARTICIPATION IN RESEARCH PROJECT

Letter To Co-operative Teachers
Confirming Participation in Research Project

Inside Address

Dear -----:

Thank you for agreeing to participate in the student work values research study that we discussed over the phone. As I mentioned to you during that conversation, participation in this study is optional and voluntary. If you decide you do not wish to participate in the study, simply return the enclosed research materials to me.

To participate in this study, you will need to set aside time with your 12th grade marketing students to administer several instruments. It is anticipated that this will take one class period in the Fall, and one class period in the Spring. In addition, you will be asked to distribute and collect consent forms and instruments for the co-operative work-site managers.

The only risk involved with this research is the risk of minor psychological or social conflict due to the fact that some of the students' responses to some of the questionnaires may be considered critical of you or the co-operative work-site manager. This risk is similar to that of an end of the year evaluation form completed by students. To minimize the psychological or social risk, a student should be asked to volunteer to seal all of the completed instruments in the enclosed envelope and return it to the high school office to be mailed back to the OSU researchers. The student responses to these instruments will never be made known to the marketing co-operative teacher or the work-site manager. However, your students and the co-operative work-site managers will receive information about the results of their Maryland Work Values Inventory (MWVI) later this Fall. Since the MWVI is non-judgemental in nature, there is no risk in returning this information.

By participating in this study, your students will gain a better understanding of their work values, and the work values of professionals in their chosen career. Furthermore, the findings of this study may lead to a means to change personal work values. This could lead to greater employability for future students.

As incentive to participate in this study, all 12th grade marketing students who complete all of the necessary paper work may enter into a random drawing for a prize of \$150. All necessary paperwork includes:

1. Return of a signed and dated consent form
2. Complete the Maryland Work Values Inventory in the Fall

3. Participating students must complete the Initial Placement Assessment in the Fall
4. Participating students complete the Work Placement Inventory and Non Co-operativeing students complete the Non-Co-operative Work Assessment in the Spring
5. All students complete of the Maryland Work Values Inventory in the Spring

The researcher will administer all of the details involved with this drawing.

Please review the instruction/information sheet to be read to the students prior to distributing the assessment instruments and the enclosed instruments themselves. If you have any questions do not hesitate to call Janet Spence at (614) 263-3865 or Dr. David Stein at (614) 292-0102.

Thank you for your assistance.

Sincerely,

Janet G. Spence

Enclosures

APPENDIX G

RECRUITMENT LETTER FOR WORK SITE MANAGERS

Recruitment Letter for Work-Site Managers

Inside Address

Dear -----:

The 12th grade marketing student whose co-operative experience you are supervising has volunteered to participate in a research study on his/her work values. In this study, work values are defined as 'the reasons one goes to work.' Each individual has a number of different work values.

One part of this study involves an examination of the impact of the co-operative work-site manager's work values on the student's work values. In order to complete this analysis, it is important that your work values be understood. As part of the research in which your co-operative student is involved, it would be greatly appreciated if you would complete and return the attached *Maryland Work Value Inventory*. However, it is important to note that your participation in this study is strictly voluntary. If you choose not to participate, simply do not complete and return this instrument to the researcher. If you choose to participate in the study, you may return the completed instrument to your 12th grade directly to the researcher, Janet Spence, in the attached self-addressed envelope.

If you choose to participate in this study, within a couple of months of completing this instrument you will receive a brief summary of the results. At that time, you will be asked to briefly discuss your work values and their impact on your work with the 12th grade co-operative student. At all other times in which the results of this study are reported, your individual Maryland Work Value Inventory results will be held confidential.

Please feel free to telephone the researchers Janet G. Spence at (614) 263-3865 or Dr. David Stein at (614) 292-0988 if you have any questions.

Thank you for your time.

Sincerely,

Janet G. Spence

Enclosure

APPENDIX H
PANEL OF EXPERTS

Panel of Experts

Work Values

Dr. Ken Hoyt
University Distinguished Professor
Division of Counseling and Educational Psychology
Kansas State University
362 Bluemont Hall
1100 Mid Campus Dr.
Manhattan KS 66506
(785) 532-5889
khoyt@ksu.edu

Mentoring

Dr. Rex Hagans
Interim Director
National Mentoring Center
Northwest Regional Educational Laboratory
101 SW Main, Ste. 500
Portland OR 97204
(503) 275-9500
hagansr@nwrel.org

Instrumentation

Alan Hershey
Project Director
Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
(609)799-3535
Ahershey@mathematica-MPR.com

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