

CHAPTER 5

SUMMARY, DISCUSSION AND IMPLICATIONS

This study was conducted to determine how situated learning contributes to the connections between school-based learning and work-based learning experiences for students who are currently enrolled in cooperative education. Individual perceptions of students enrolled in cooperative education, their teacher-coordinators, and their workplace supervisors were examined for instances in the students' work experiences that reflect how school-based learning gives context to their work-based learning and how work-based learning is linked to their school-based performance. This research adds to the body of knowledge related to school-to-work transition for students enrolled in cooperative education. In this section, a summary, discussion, and implications are presented based on the data gathered and the analysis of them.

Summary

As Banks (1993) noted, schools are being called upon by employers to change society and to respond to the changes in society. Educators are confronted with the need to modify educational processes to meet changing workplace needs and ever-changing technologies, and employers are faced with the challenge of helping educators prepare qualified workers if they are to succeed in a competitive global market. Stern (1994)

reported that transition from school to work for American students often takes a number of years.

The School-to-Work Opportunities Act (1994) has stimulated a new approach to learning in America's schools that links students, schools, and workplaces. The importance of school-to-work programs has been reinforced by research that supports the value of "situated" or contextual learning.

Purpose of the Study

The overall purpose of the study was to determine how work-based and school-based experiences of students enrolled in cooperative education are linked. More specifically, details of students' school-based experiences that they, their teachers, and their workplace supervisors perceived as linked to the workplace were sought. Additionally, details of students' work-based experiences that they, their teachers, and their workplace supervisors perceived as linked to school-based experiences were collected. The interviewees were also asked to identify additional school-based activities that would help students transition to the workplace. The three questions of the study were:

1. What school-based experiences do students, teachers, and workplace supervisors perceive have provided learning in the context needed for the work-based experiences of students enrolled in cooperative education?

2. What work-based experiences do students, teachers, and workplace supervisors perceive as providing context to school-based learning experiences of students enrolled in cooperative education?
3. What additional school-based learning experiences can students, teachers, and workplace supervisors identify that would help students who are enrolled in cooperative education relate their school learning to the workplace?

Participants

Ten secondary school sites in southwest Virginia were selected for this study. Secondary school administrators were first contacted by telephone and asked for written permission to contact a cooperative education business or marketing teacher in their schools. The administrators were also asked for a listing of their teacher-coordinators of cooperative education along with their respective schools. Following the telephone conversation, letters were sent to each administrator outlining the details of the study. After permission was granted by the administrators to contact the teacher-coordinators, the teachers were contacted by telephone and asked to participate in the study. Follow-up letters were also sent to the teacher-coordinators after the telephone conversation. Letters were also sent to the selected students and workplace supervisors. A parent or legal guardian of each selected student signed a consent form allowing the student to participate in the research study. A copy of the letters and consent form appear in Appendix A.

The teacher-coordinators of cooperative education selected a student at their respective schools to participate in the study. Criteria for student selection was based on each student's willingness to participate, being able to obtain parental consent for the student to participate in the interview, and being able to get the student's workplace supervisor to participate. At each of the ten sites, separate interviews were conducted with the student, the teacher-coordinator, and the student's workplace supervisor, for a total of thirty interviews.

Interview Protocols

Interview protocol content was based on the three research questions addressed in the study. Three interview protocols were developed--one for the student enrolled in cooperative education, one for the teacher-coordinator, and one for the workplace supervisor (see Appendix B).

For each group of interviewees, the interview questions were divided into four distinct areas. Question one served as an ice-breaker. It asked participants to discuss their role in cooperative education. For question two, interviewees were asked to list five specific school-based learning activities the student has had that helped the student to connect school with work. Each interviewee was asked to select one of the activities and expand upon it further by giving details about the activity and what knowledge, attitudes, or skills were being exhibited in this activity. For question three, interviewees were asked

to identify specific work-based experiences the student had during cooperative placement that related to the student's school-based learning. Again, participants were asked to select one activity that had the most impact on the student's school-based learning and expand on it further. In both questions, emphasis was placed on expanding input relevant to situated or contextual learning.

For question four, interviewees were asked what additional school-based learning experiences could students have that would help them better link school and work. For this question, interviewees were asked to identify specific skills, competencies, or employability skills that students could be provided at school that would provide learning in the context needed for transition to the workplace.

Questions and procedures used for the interviews were based on the literature review and were designed to answer the three research questions. Further, the interview protocols were field tested and revised as needed by the researcher. The interview protocols were also reviewed by the major advisor and research professor before use in the interview process.

Methodology

A qualitative interview research design was chosen to obtain data for this study. Interviews were conducted with 30 participants from ten school sites and identical procedures were used in each interview session. Ten students enrolled in cooperative education in either business or marketing, ten teacher-coordinators, and ten workplace

supervisors were interviewed. Each interview session was tape-recorded and the researcher used an interview protocol sheet to guide the interviewees through the questions. Notes highlighting the interviewee responses were recorded at each interview.

The researcher completed a demographic information sheet at each school site. Students enrolled in cooperative education, their teacher-coordinators, and their workplace supervisors were asked demographic information before the interviews. Teacher-coordinators were asked for the number of years teaching experience and the number of years serving as teacher-coordinator of cooperative education. Additionally, each teacher-coordinator was asked to compare the student to other students enrolled in cooperative education the teacher had worked with over the years, as in the top 10%, top 25%, top 50%, or below 50%. Further, teachers were asked to describe their work experiences in the business environment.

Workplace supervisors were asked to describe their business, to list their job title, and to describe their responsibilities in their current position. Students were asked what business courses they had taken, where they were employed, what type of job they had, and to describe their school experiences.

The purpose of the interviews was explained to participants and they were informed that the interviews would be audio-taped and informed that they could request

that the recorder be turned off at any time during the interviews. The interviews lasted between 30 and 60 minutes.

Following each interview, the audio-tape was assigned a code name to assure anonymity. The code name was also recorded on the interview protocol sheet. Each tape was transcribed by the researcher and the tape transcript, the audio tape, and the interview protocol sheet were filed together. Accuracy of tapes was verified by a panel of three individuals not connected with the study. Each panel member listened to one randomly selected audio-tape and read the corresponding tape transcript.

Transcripts of the taped interviews were read, coded, and emerging themes determined. The coded transcripts were then placed into *The Ethnograph* software and sorted based on the codes assigned. These coded segments were retrieved and analyzed according to themes. The basis for theme development was the three-part foundational skills and the five competencies presented in the Secretary's Commission on Achieving Necessary Skills (1991) report.

The three SCANS (1991) foundational skills and the five SCANS competencies served as the framework for presenting the findings for each research question. Quotes were taken from the transcripts to illustrate each theme.

Results and Discussion

Compilation of the data recorded on the demographic information sheets completed at each school revealed the following information regarding interviewees. All student interviewees were enrolled in a business or marketing cooperative education program. Seven of the students were seniors and 3 were juniors; they ranged in age from 16 to 18. Four students were described as being in the top 25% and 6 were described as being in the top 10% in their cooperative education classes, as compared to students the teacher-coordinators had worked with over the years. Teacher-coordinators had been teaching from 2 to 31 years, with the average number of years teaching being 15.8. These teachers had served as teacher-coordinators of cooperative education from 1 to 19 years with the average number of years being 8.8 years. Each of the 10 teachers had worked in the business environment in jobs other than teaching. Six of the teacher interviewees were male and 4 were female; 5 were business teachers and 5 were marketing teachers. Additionally, each teacher served as Future Business Leaders of America (FBLA) or Distributive Education Clubs of America (DECA) sponsor.

Workplace supervisors had varied job descriptions and responsibilities. The job title and type of business for each workplace supervisor follows: owner of a restaurant, office manager of an engineering firm, team leader of operation support at a bank, store manager of a store, personnel manager of a factory, office supervisor of a factory, vice president of an insurance company, corporate controller of a construction company, store manager of a retail store, and school secretary at a vocational school office. Workplace

supervisors were in either middle or upper management positions, with a host of managerial responsibilities that included the following: managed entire office; coordinated team efforts; managed labor, inventory, and finance; hired and trained new personnel; audited and computed taxes; conducted general operations; worked as administrator for 32 teachers.

To facilitate discussion of the findings, each of the three SCANS (1991) foundational skills and five SCANS competencies were addressed. Triangulation of data was determined by analysis of transcripts drawn from different contexts to determine where the data intersected. Summaries of the interviewees responses to the three research questions, for each of the skills and competencies follow.

Foundational Skills

A three-part foundational skills were identified by the SCANS (1991) report as necessary for workers. The foundational skills include (a) basic skills: reading, writing, arithmetic and mathematics, speaking, and listening; (b) thinking skills: thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning; and (c) personal qualities: individual responsibility, self-esteem, sociability, self-management, and integrity.

Basic Skills

Interviewees perceived that students were provided school-based learning activities in the context needed to apply the basic skills of reading, writing, math, and speaking and listening in workplace settings. Interviewees did not cite reading, writing, and math as skills learned in the workplace that would help students connect work-based learning to school-based activities; however, writing skills surfaced as a communications skill that students learned in the workplace. In question three, one interviewee noted that basic skills such as reading, writing, and math were a “given.”

Communication skills--including both oral and written communication skills--was the number one response by interviewees as work-based learning activities that would help students connect work-based learning with school-based performance. And again, communication skills were noted in question three as the most important additional school-based learning activity that students could be provided at school that would help them to better link school with work. This finding supports the 1993 Raymond, McNabb, and Matthaiei report that internships or work-based experiences “help students develop their communication skills” (p. 202).

Reading skills. Interviewees said students needed reading skills in order to understand written instructions and to be informed of employee rights and responsibilities. Classroom learning was provided in a workplace context by having students read and study various employee handbooks and literature from the local

community businesses and industries. Interviewees noted that reading skills help students to problem-solve through reading instructions and manuals. One student said her proof-reading skills were very important on the job, and another student said that by learning to read well she did not “have to ask so many questions.”

Writing skills. Writing skills were provided through school-based learning as students simulated workplace use of writing in a variety of ways. Students and teachers noted that school-based writing activities included writing and grammar development in English composition, as well as simulations in business and marketing classes where the students composed letters, memos, and business correspondence. Other writing activities included preparing a job manual and keeping a “job journal” with entries about events that had happened on the job. These activities provided students not only with writing skills but also organization skills, as students must organize their thoughts for writing. Further, critical-thinking skills were developed as students analyzed what they were writing about. Another outcome from keeping a job journal was that students learned to problem-solve. As they wrote about a problem or situation, they were often able to understand the problem more thoroughly and arrive at conclusions on their own as they walked through the problem for the writing of the assignment.

Increased writing skills were reported to be an outcome of work-based learning that helped students in their school-based learning. Students were said to be more careful

of punctuation, grammar rules, spelling, and flow of thoughts on paper as a result of the written communication skills gained in the workplace.

Writing skills were also identified in question three as additional activities that students could be provided at school that would help them connect school with work. Interviewees noted that many students entering the workplace could not write a business letter or compose other business correspondence. This finding is in congruence with Kelly and Gaedeke's (1990) study in which employers reported poor communication skills as a major weakness of business graduates.

Math skills. Math skills needed in the workplace were also a vital part of school-based learning for students. Examples of math-building activities students had been provided in the school context of work-based performance included learning about financial aspects of businesses in management simulations, learning to prove cash drawers and count change, learning to compute taxes, and learning checkbook management.

Speaking and listening skills. Speaking and listening skills, along with computer skills, were the most emphasized skills that interviewees cited as needed by the students in the workplace. These communication skills were identified in question one as the most important skills that students had learned through their school-based activities. These communication skills, again, were listed in question two as a skill that students had learned in their work-based activities that helped them connect school with work. And

interestingly enough, oral communication skills was the number one response by interviewees in question three as additional experiences that students could be provided in school that would help them better link school with work.

School-based activities that helped students to learn these communication skills in the context that they would be used in the workplace included learning the vocabulary or terminology of the business environment, role plays, units on workplace communications, oral reports, and instruction regarding interviewing skills, and one-on-one interaction with supervisors, customers, and other individuals. These learning activities were viewed by the interviewees as helping students to link school to the workplace.

Many interviewees noted that an important workplace learning experience for students in their cooperative job placements had been increased communication skills. Interviewees reported that students had learned to communicate by telephone and in person as well as gained listening skills. Students were reported to be “more outspoken,” “more assertive,” and to have “lost their shyness,” as a result of their cooperative work experience.

Oral communication skills were listed in question three by students, teachers, and workplace supervisors as being an area where students could be provided more school-based skill-building activities to help them better connect school to the workplace. Interviewees noted that communication skills meant the ability to work on teams and

communicate with team members. In addition, presentation skills and interviewing skills were listed as communication skills that students needed. One workplace supervisor said, “communication skills just cannot be emphasized enough.” And a business teacher said that “communication skills should be worked into all of the upper level classes.” This finding supports Gaedeke and Tootelian’s (1989) observation that employers reported strength in business communication skills as a reason for choosing employees.

Thinking Skills

School-based activities that provided learning in the context they would be used in the workplace included a number of problem-solving and decision-making activities. At all school sites, students were involved in activities such as role plays, office and management simulations, and consensus-building. These activities allowed students to think through situations, develop alternative solutions, and arrive at what they considered to be the best decision for solving a problem. Consequences for each possible solution were also discussed. One teacher described problem-solving activities as helping students to see the relationship between theories presented in the classroom and application of these theories to a work-based situation.

Thinking skills were also developed by students through their work-based learning in their cooperative job placement. Employers noted that students gain “critical-thinking” skills at their worksites. One employer felt that the student’s thinking skills had been enhanced by having to prioritize decisions, deciding the importance of tasks and the order

that these tasks should be done. A teacher at another site said that because of the student's workplace experiences, the student had "learned to think on her feet." These findings are in agreement with a 1989 study of two midwestern schools where Perry found that internships provide practical experiences for students and make students think.

While interviewees reported that students were provided a number of opportunities in their school-based learning to participate in brainstorming, problem-solving, and decision-making activities; interviewees concluded that actual on-the-job experience provided students with real-life application of thinking skills. They were developed particularly through dealing with customers and day-to-day situations. Thinking skills were not discussed by interviewees for question three.

Personal Qualities

Personal qualities of individual responsibility, self-esteem, sociability, self-management, and integrity were identified by the interviewees to be important skills that students had learned both as part of school-based learning in research question one and work-based learning in research question two. Additionally, interviewees responded that students needed instruction on initiative, dependability, responsibility, business ethics, how to act and dress in the workplace, and etiquette to help them better connect school with work. Goldberger, et al. (1994) likewise noted that work-based experiences help students to understand their role in the workplace. Further, they note that workplace

experiences help students to take directions, to act in a professional manner, and to handle interpersonal conflicts.

School-based learning regarding personal qualities included activities that stressed the importance of attendance, safety, and quality. Having a positive attitude was the personal quality that was stressed over and over by students, by their cooperating teachers, and by workplace supervisors. One supervisor said if students have a positive attitude and are willing to learn, we can teach them the skills required on the job. Another employer reported that they had hired one student because of skill level, but the student did not work out because of a poor attitude. This employer then hired a student with fewer skills but with a positive attitude and was very happy with the student's performance.

Teachers said they used various resources to help students to have a "right" attitude toward work. Interviewees often referred to "work ethics" being important for students. Work ethics included personal responsibility, dependability, positive attitude, loyalty, and quality service.

Interviewees responded that students personal qualities were enhanced through work-based learning. Students learned the importance of attendance and punctuality and of being responsible for notifying employers ahead of time if they needed time off. Interviewees repeatedly responded that students had gained responsibility through their

work-based experiences. Through an increased sense of responsibility, students had gained confidence, self-esteem, and maturity. Additional personal qualities gained through work-based experiences included the ability to take constructive criticism, increased respect for others, and business etiquette.

When asked how these qualities learned in the workplace helped students in their school-based experiences, interviewees noted that students had increased respect for teachers and peers, were more polite, were more responsible for classroom assignments, and had gained patience.

Competencies

The SCANS (1991) report identifies five competencies that effective workers can productively use. The five competencies are (a) resources: allocating time, money, material, space, and staff; (b) interpersonal skills: working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds; (c) information: acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information; (d) systems: understanding social, organization, and technological systems; and (e) technology: selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies. The following discussion concerns interviewees perceptions of these five competencies.

Resources

Resources was a category that was mentioned by interviewees only in terms of time management. Interviewees responded that students had gained time management skills through their workplace experiences. One student stated that being in the workplace had helped her to manage her time more efficiently. She said, “[It’s taught me] managing my time to do my schooling and work, how to be on time and meet all my guidelines of the things I’m supposed to do.” This student’s teacher-coordinator also noted that the student had learned time management skills. She said, “I’m sure her time management skills have increased.”

Interpersonal Skills

Interpersonal skills were perceived by interviewees to be skills students had learned through school-based activities and through work-based learning. Interviewees further responded that students should be provided with additional activities in interpersonal skills to help them connect school with work.

Interviewees reported that students had learned interpersonal skills through school-based activities including working with people as part of community service activities and Future Business Leaders of America projects. Students had experienced simulated activities to help them deal with customers, supervisors, and co-workers.

Other interpersonal skills activities that interviewees cited as school-based learning included conflict-resolution and learning to work with individuals with disabilities.

Interviewee responses regarding work-based learning regarding interpersonal skills that helped students in their school-based instruction centered around the area of teamwork. Interviewees reported that students had learned that they were a vital part of a team. By understanding they were a part of a team, students were reported to have learned to pull together, to communicate with others if there was a problem, and to work to achieve a common goal. Interviewees said learning teamwork skills would help the students in their school-based learning by giving them a sense of responsibility and assist them in school projects.

Interpersonal skills were considered by interviewees to be an area that students needed additional training in order to help them connect school with work. Interviewees noted that human relations skills should be part of the schools' curriculum. Interviewees also perceived that students needed to learn more about being on teams and have an understanding of how their job affects other people.

Information

Interviewees responded that students learned to process information in school-based activities primarily through computer usage. However, interviewees also reported that information processing was done by students through organizing and typing

documents; maintaining filing systems, both manually and electronically; acquiring information by telephone; and using calculators to process information. Keyboarding skills were considered to be an important school-based learning activity that provided learning in the context it would be used in the workplace. One student interviewee noted that keyboarding skills helped her to put information into the computer faster to help the customer. Alpha and numeric filing systems, as well as electronic filing, were school-based activities students learned that helped them organize and process information. Interviewees also noted that school-based student activities including performing office simulations, working on payroll, calculating sales tax, conducting inventory, learning telephone procedures, filing taxes, and writing business letters had helped connect school with work. Each of these activities was designed to help students organize, maintain, interpret, communicate, and process information.

While interviewee responses did not include the information category in work-based learning, this category was so closely interlinked with the area of technology that it was difficult to separate the two. Interviewees perceived that students dealt with information in various aspects of their work-based experience, especially filing and gaining information from customers or clients on the telephone.

The information category also emerged in additional experiences that would help students to better connect school with work. Interviewees responded that students

needed additional training in filing. One student noted that she had no idea about all that was involved in filing.

Systems

Understanding organizational systems emerged as a category in each of the three research questions. In question one, interviewees responded that students learned about organizational systems in school-based learning activities through guest speakers, field trips, and employee appreciation banquets. They noted that guest speakers helped students to understand what employers expect of employees and a greater understanding of careers. Business and industry field trips reportedly gave students an opportunity to see first hand what was going on in the workplace. Interviewees further reported that seeing employers in a different environment at the employer appreciation banquets helped students to better relate to their employers and gave them a better understanding of organizational systems.

Interviewees noted that students gained knowledge of organizational systems through work-based activities simply by being in the workplace. Being in the workplace helped students to realize the requirements of being a part of an organizational system and to understand “the world of work.” As students worked in cooperative placements and became part of an organizational system, a number of personal qualities emerged including responsibility, dependability, self-esteem, confidence, maturity, and confidence. This finding supports the 1991 findings of the Office of Vocational and Adult Education.

They reported that students who participated in work-based learning experiences learned to meet high performance expectations of the workplace.

Interviewees also noted in question three that more activities should be provided to students, in the areas of career orientation and exposure to different kinds of careers, to help them understand organizational systems and to connect school with work. Activities that were cited included guest speakers, tours, and job shadowing. Interviewees felt that “real-world” experiences provided by cooperative education placements and volunteering in the community helped students to understand organizational systems.

Technology

Interviewees found that students’ school learning enabled them to apply technology to specific work-based tasks. Computer skills were revealed at every site as one of the most important skills that students could learn at school that prepare them for the workplace. As noted in the information section, it was often difficult to determine whether interviewees were talking about information processing or the use of technology when referring to “computer skills.” Since the use of technology is necessary to process the information, most responses about the use of computers were included under technology. Interviewees spoke of the importance of learning about hardware components and software programs. Training in trouble-shooting technologies had also

been provided as part of school-based learning activities in the context that they would be used in the workplace.

Interviewees also found that students learned about technology in their work-based experiences that helped them in their school-based learning. Interviewees reported that students had basic computer literacy skills, but these skills were “honed” in the workplace.

In question three, interviewees agreed that it would be helpful for students to have more computer classes to help them better connect school with work. Students reported that more computer classes would help them to connect school with work and a teacher noted that Internet training should be provided to students. Workplace supervisors also believed that students needed more computer knowledge when they entered the workforce. Another area of technology that surfaced in question three, of activities that students could be provided in school that would help them to better connect school with work, was telephone training. Multi-line phones and transferring calls often presented students with a problem and teachers reported that they just did not have the technology available to teach students about transferring calls. These findings coincide with those of Boatwright and Stamp (1988), who reported that employers ranked technology high in desired skills for employees, especially for accounting and computer positions.

Job Interviews, Resumes, and Job Applications

Learning about job interviews, resumes, and job applications emerged as a final category that does not fit under the SCANS (1991) foundational skills and competencies in questions one and three. Interviewees noted that developing these competencies was necessary to enable students to make the connection between school and work.

Interviewees at all sites found that students were provided school-based activities that dealt with interview skills. Advisory committee members and local business people were often asked to participate in mock interviews to help students develop their interviewing skills. Resume writing and filling out job applications was included in computer classes as well as English classes. Units on job preparation were a vital part of each site's curriculum and much time was spent on helping students to prepare to enter the workforce. Students at some sites also prepared portfolios, with examples of their skills and competencies, to take with them to job interviews.

This category also emerged in question three, as additional school-based learning experiences that students could be provided to help them better connect school with work. Employers seemed to be especially concerned that many students did not know how to fill out a job application properly, did not know how to dress properly for an interview, and needed more preparation for job interviews.

Implications

Implications, based on findings of this research study, focus on those for (a) school-to-work implementation, (b) school-based instruction, (c) work-based learning, and (d) further research.

Implications for School-to-Work Implementation

Interviewee responses substantiate the importance of the SCANS foundational skills and competencies, particularly communication skills. For this study, interviewees addressed skills and competencies that were required by students entering the workplace. For example, the basic skill of math was addressed by interviewees on a relatively low-skill level and resources was addressed only in the area of time management. These two SCANS skills were reported by interviewees as they apply to entry-level positions. Thus, even though minimally emphasized by the interviewees of this study, math and resource skills should not be neglected when preparing students for transition to and advancement in the workplace. Communication skills, on the other hand, are essential for those entering the work force.

This study can serve as a model for evaluation when implementing school-to-work programs, and the findings can be used with advisory committees. Advisory committee members could use examples from this study as those of best practices for cooperative education when evaluating business and marketing programs.

The study further reveals the need for professional development of teachers and employers. By learning of the ways the students in this study linked school-based learning with work, teachers can use these as examples for their own cooperative education offerings. Further, employers should be alerted to these examples to help them become familiar with cooperative education and how it helps students transition to work.

Implications for School-Based Instruction

Interviewees in this study corroborated that the SCANS three-part foundational skills and five workplace competencies were an important part of school-based and work-based learning. Thus, curricula should be developed and implemented to ensure that all students learn these skills and competencies needed in the workplace.

Teacher-coordinators of cooperative education should endeavor to demonstrate the relationship between school-based learning and the world of work. Outcomes of this study indicate that contextual learning experiences can be provided in school. These experiences include the incorporation of real-life experiences, simulations, role-plays, actual work experience and community service into classroom assignments and projects. Further, job shadowing, plant tours, and guest speakers from industry can provide school-based experiences to help students understand the skills needed in the workplace. Opportunities should be provided for workplace and community representatives to speak

to students. Speakers should stress hiring needs, required skills, and the relationship between school-based learning and workplace performance.

When asked what additional school-based experiences students could be provided that would help them transition to the workplace, interviewees responses centered around computer skills; communication skills, both oral and written; human relation skills; and work ethics. Implications from this include: (a) incorporating increased computer literacy skills into each area of curriculum; (b) emphasizing communication skills throughout the curriculum, with stress placed on the importance of strong oral and written communication skills in a workplace context; (c) encouraging teachers to promote teamwork, communication, and cooperation among students with an emphasis on how these skills will be used in the workplace; and (d) incorporating into the curriculum the importance of attitude, self-esteem, and behavioral skills.

Implications for Work-Based Instruction

The study findings revealed that students, their teachers, and their workplace supervisors each felt students' participation in cooperative education resulted in students having a more positive attitude toward school and a strong perceived connection between school-based learning and work-based experiences. Of special note, interviewees indicated that students', enrolled in cooperative education, work experiences differed from students getting a job on their own, as students gained from having a support system from teacher-coordinators and peers to help them understand and make decisions about

problems they encountered in the workplace. Interviewees perceived that students gained maturity, self-confidence, personal responsibility, a positive attitude, and an understanding of the workplace by gaining work experience.

Thus, outcomes of this study substantiate that cooperative education is a viable way to link school with work, and it provides a vehicle for contextual learning. Therefore, each school system should be encouraged to (a) target local businesses and industries to sponsor students in cooperative education, internships, and job shadowing learning opportunities; (b) develop a plan to inform business and industry of how to participate, and (c) include representatives from business, industry, and labor in its curriculum review processes.

Workplace supervisors often answered that they did not know about the school-based activities or experiences in which students were involved. Thus, increased communication between education and business and industry should be encouraged. Specific orientation for workplace supervisors should be provided by the schools to inform them of the students' school-based learning activities, as well as expectations from the workplace in the students' job placement.

Implications for Further Research

Based on the findings of this study, the following implications for further research were developed:

1. This study focused solely on students enrolled in cooperative education, teacher-coordinators, and workplace supervisors. Additional research should be done to examine how school-based learning is provided in the context needed for workplace experiences in other school-to-work transition programs.
2. Further research should be done to determine how all teachers incorporate the SCANS (1991) foundational skills and competencies into their curriculum. This research can be based on classroom observation as well as personal interviews.
3. This study focused on one student enrolled in cooperative business or marketing education, the student's teacher-coordinator, and the student's workplace supervisor at each of ten schools. Further research should be conducted replicating this study to examine experiences students have had at other secondary and post-secondary institutions that relate to learning in the context needed for work. Additional research at other schools and with students in other content areas would strengthen the validity of the findings of this study.
4. For a broader view of contextual learning activities provided by schools to help students transition to the workplace, a quantitative instrument based on examples of the use of the SCANS (1991) foundational skills and competencies found in this study could be developed to send to employers, students, and teachers involved in

school-to-work transition programs. The outcomes should support the value of including the skills and competencies in the curriculum.